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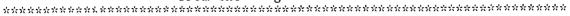
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#### **ABSTRACT**

The Power Learning Project was a pilot test of the potential of home-based computer-assisted instruction (CAI) for adults with intermediate reading skills and adult nonnative speakers of English. Project development was made possible by a partnership involving public, private, and community-based organizations in Philadelphia. Online services were purchased from IMSATT Corporation, which sells access to the CYBIS integrated learning system (formerly known as Platc software). Each of eight test sites assigned one teacher to work with specially selected students who agreed to spend at least 6 hours weekly on computers placed in their homes. Teacher training and technology-related technical support services were provided by Drexel University's Office of Computing Services on a subcontract basis. A third-party evaluator confirmed that provision of CAI in the home was a likely factor in the achievement gains of some learners at certain test sites. It was recommended that the program be improved by providing more teacher training, better assessment/evaluation procedures, and higher-quality software. (Appendixes constituting approximately 75% of this document contain the following: postproject teacher interviews; project evaluation/data collection forms, correspondence, and agreements/contracts; teacher training materials; teacher logs; learne: logs; electronic communications between participants; and examples of CYBIS usage data.) (MN)

from the original document.





<sup>\*</sup> 

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# Final Report Program Year 1992-1993 National Institute for Literacy Grant No. X257A20167

Learn at Home: A Philadelphia Distance Learning
Project

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The activity which is the subject of this report was supported in part by the National Institute for Literacy. However, the opinions expressed herein do not necessarily reflect the position or policy of the National Institute for Literacy, and no official endorsement should be inferred.



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Miriam Heckshel of Control Data Corporation consistently overstepped her role by making more and more support available to this endeavor. Much of our progress consistently relied on her.

Nat Kannon, the President of IMSATT Corporation, brought the resources of his company and his own dedication to this project. He was a role model partner in this public/private effort; we wish that more business owners shared his commitment to service.

Jay Sivin Kachala is to be commended for his patience and flexibility in designing and implementing the impact evaluation in an extremely challenging environment.

We are of course grateful for the generous support and ongoing cooperation of Bell of Pennsylvania/Bell Atlantic, particularly Mary Kelly and Anne Greer. They persisted with us, working to find solutions to help adult learners reach their goals with the tools of advanced telecommunications.

Tremendous thanks are also due to the staff of the Mayor's Commission on Literacy who worked so hard and offered critically needed encouragement along the way.

Finally, we owe our deepest gratitude to Dr. Jan Biros of Drexel University's Office of Computing Services, whose vision and leadership moved this project off the drawing board.

We believe that the National Institute for Literacy exhibited the kind of leadership our field needs by supporting the Power Learning Project. On behalf of the participants in this project we thank the Institute!



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#### Final Report

#### Program Year 1992-1993

#### National Institute for Literacy Grant No. X257A20167

### Learn at Home: A Philadelphia Distance Learning Project

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## **SECTION 1:**

# Plan and Design of Philadelphia's Power Learning Project\*

The Mayor's Commission on Literacy renamed this program the Power Learning Project based on feedback received from participating agencies to the original title



#### FINAL REPORT:

#### PHILADELPHIA'S POWER LEARNING PROJECT

#### **INTRODUCTION**

The Power Learning Project was designed as a pilot to test the potential of homebased computer assisted instruction coupled with classroom instruction for adults with intermediate reading skills or for those adults whose first language is not English. It was effectuated by the establishment of a partnership of public, private and community based organizations in Philadelphia. This project integrated telecommunications, an on-line integrated learning system and professional teachers to explore how this combination could help learners achieve their learning goals more quickly. Furthermore, the project's anticipated additional benefit was that participants would learn to command and comprehend contemporary uses of technology in a way that was relevant and beneficial to their personal lives. Through this project, teachers saw more rapid improvement in the skills of Power Learning Project learners than they observed in learners who did not have access to the on-line services in their home. Improvements were noted in basic reading, writing and comprehension skills as well as in the self esteem, confidence, and motivation of pilot participants. The rate of retention and time on task was increased. The pilot encountered numerous obstacles, yet the majority of all partners involved was that this project was extremely valuable and should be extended locally and replicated elsewhere. Two of the twelve adult educators involved with the pilot project felt at the end of the pilot that the project should not be replicated or expanded. The balance of the educators involved strongly recommend replication. Five of the educators are working with the Commission to raise funds to continue and upgrade the local pilot. Without ongoing funding in Philadelphia many of the literacy providers are unable to continue to implement the model. The Mayor's Commission and some of the agencies involved are actively seeking support to continue to use the courseware.

The Power Learning Project began in Philadelphia in November 1992 when the National Institute for Literacy provided \$94,786 to match \$150,000 in local support.



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The impact evaluation for this project found that the provision of CAI in the home was a likely factor for achievement gains among some of the learners in certain test sites. The model as implemented in Philadelphia would have been improved by:

- a more reliable log-on system
- more time for teacher training
- better assessment/evaluation procedures
- higher quality hardware
- a dedicated phone line

These improvements would enable this viable and exciting model to continue.

#### **RESEARCH OUESTIONS**

This demonstration project asked questions about the computer hardware which was used, the connections between the microcomputers in people's homes and the IMSATT mainframe computer, the courseware offered by the CYBIS learning system, and the overall impact of the project. The specific questions were:

#### **Hardware**

- How do the participants respond to the hardware?
- What aspects of the hardware were most useful?
- Was the hardware sufficiently user-friendly aspects for the population?
- Which aspects of the hardware presented the most problems?
- What hardware could be recommended for future hardware for similar projects?

#### Connections

- What aspects of the mainframe hook-up presented problems, if any?
- What effective measures were taken to resolve hardware or connection problems?

#### <u>Software</u>

- Which lessons were most used by the instructors and learners and why?
- Which lessons were least used by the instructors and learners and why?
- Was there a difference between lessons preferred by instructors and learners?
- How did the learners approach the lessons?
- Which aspects of the software package were most user-friendly?
- Were these user-friendly packages also effective lessons?

#### Software - continued



- Which aspects of the software package were least-user friendly?
- Were these less user-friendly packages also effective lessons?
- How did the programs help learners meet individual goals?

#### **Impact**

- Can reading skills gains be accelerated by adding home-based CAI?
- Can writing skills gains be accelerated by adding home-based CAI?
- Can math skills gains be accelerated by adding home-based CAI?
- Can self esteem be affected/increased by home-based CAI?
- Will learners change any attitudes toward technology after using home-based CAI?
- Can motivation to build literacy skills be increased by home-based CAI?



#### THE MODEL

In order to find the answers to these questions the Mayor's Commission on Literacy pursued the following approach:

- Six community based and two university based adult literacy providers were each given twelve computers, teacher training and access to an on-line curriculum by the Commission on Literacy;
- Agencies distributed the computers to specially selected adult learners who
  agreed to work at least six hours a week on the computers, once the computers
  were placed in their homes.
- Each of the eight test sites assigned one teacher to work with the students and to participate in all program implementation and evaluation meetings.
- Each agency designed their own method for integrating the home-based CAI into their classroom program.
- The Commission sub-contracted teacher training and technology-related technical support activities to Drexel University's Office of Computing Services.
- On-line services were purchased from IMSATT Corporation which sells access to the CYBIS integrated learning system (formerly known as the Plato software developed by Control Data Corporation).
- Bell of Pennsylvania provided in-kind technical support in matters relating to the telecommunication services.
- Control Data Corporation provided in-kind support including manuals and extensive technical assistance regarding the operation of the integrated learning system.
- Process evaluation tracking and interpretation activities were also subcontracted to the Drevel University Office of Computing Services.



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- Design and implementation of the impact evaluation were subcontracted to Interactive Educational Systems and Design (IESD).
- The Commission served as the facilitator among agencies and provided the field services necessary for data collection efforts.



#### **DEVELOPING THE PARTNERSHIP**

Philadelphia's efforts to launch this high technology distance learning project were realized through the formation of an effective partnership among public, private and community-based agencies. The partnership began who Drexel University's Office of Computing Services approached the Mayor's Commission on Literacy with the idea of working with IMSATT Corporation to try at their distance learning courseware. IMSATT had recently received the rights to sell the PLATO software developed by Control Data Corporation for remote use in homes and community-based education agencies.

Simultaneously, IMSATT Corporation was negotiating with Bell of Pennsylvania for the mass marketing of the CYBIS and other home education software products. As a result of IMSATT's efforts, a new collaboration was spawned, which included the Mayor's Commission on Literacy, Bell of Pennsylvania, Drexel University and IMSATT Corporation, to explore the possibility of a Philadelphia pilot of home-based, computer-based instruction for adult learners. The nature of the collaboration was deliberately undefined in order to allow for a creative and evolving implementation plan. Each partner brought its specific expertise to the design and implementation processes of the pilot project.

As the implementation options were reviewed, Drexel and the Commission decided that only those agencies with prior significant experience working with computers in adult education would be eligible for participation in the pilot. Three factors contributed to this decision:

- 1. A basic understanding of hardware and software features would reduce the initial teacher training associated with launching the pilot;
- 2. Experience integrating computers into learning would assure early understanding of and adherence to the vision;
- 3. Experience in working with both adult learners and computers indicated that the teachers and agencies could be expected to possess the skills, sensitivity and patience needed for such an integration.

While many adult literacy programs in Philadelphia have independent computers, few actually integrate usage into their curricula. Among the many agencies with computers, the Commission and Drexel invited seven adult



education providers to a meeting to learn about the possibility of a pilot project. All seven agencies attended the first meeting and participated throughout the pilot. Those agencies included two ESL programs, two programs that serve women exclusively, two tutoring programs and two university based programs.

The factor which contributed most to the success of this pilot was that the partners shared a common purpose and a desire to work together.

#### MISSION, GOALS, OBJECTIVES, AND DESIGN

The mission of this endeavor was to explore the potential of providing learners access to computer-based instruction from their home. MCOL pursued this mission for the following reasons:

- Philadelphia's many adult literacy programs are full and the extensive waiting lists of adults seeking access to programs keeps growing;
- Classroom-based programs most often offer less than six hours a week of instruction due to lack of sufficient funding;
- Adults reading at the fifth to eighth level, a majority of those served, often require two to three years of class in order to pass their GED exam or reach their personal goals;
- Adult learners enrolled in traditional classroom programs are able to build their reading and writing skills but remain ignorant about computers and telecommunications;
- The retention rate among Philadelphia's literacy providers tends to be between 50-75% of all learners enrolled; and
- Many adult learners have difficulty attending classes due to transportation or child care problems, or because of embarrassment.

With these factors in mind, the Commission decided that if home-based CAI could accelerate learning, it could have significant impact on the ability to deliver effective literacy services to more adult learners. Furthermore, learners would gain extensive hands-on experience with various uses of high technology. The Commission was also cognizant of the need to increase the technology-related skills of adult educators and to raise their awareness of CAI/integrated learning systems. Finally the Commission sought a simple solution to help learners overcome the childcare and transportation problems that inhibited them from attending class.



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Providing more Overcoming transportation time on task obstacles Offerering more Computerizing **CYBIS** record-keeping individualization Mainframe Computer Creating greater Giving more understanding of computers learners access and telecommunications to instruction

Illustration 1: Depiction of Attributes of Home-based CAI

#### THE GOALS

In order to fulfill the mission of the project, it was imperative that the following goals be pursued:

- 1. Seek new ways to increase access to instruction
- 2. Seek techniques and technologies to accelerate the rate of learning
- 3. Provide basic literacy and computer literacy instruction simultaneously

Initial conversations among all agencies indicated that a consensus existed with respect to the current context and the goals needed to address the systemic problems.

In order to facilitate a thorough and thoughtful design process, the Commission and Drexel met on several occasions to develop alternative models for such a pilot. Both parties agreed that a successful model needed to achieve the following:



- Integrate the use of technology into existing adult literacy programs;
- Provide adult learners with greater access to high technology;
- Rely on modestly priced hardware and software for pilot and replication;
- Offer computer assisted instruction for basic skills enhancement through a variety of instructional approaches at no cost to adult learners;
- Expand the expertise of Drexel, the Commission, providers and teachers regarding the options for computers in the field of adult learning.

At the first general meeting with adult literacy providers, participants were briefed on the opportunity to participate in the design and implementation of a pilot project designed around specific courseware. The attributes of the courseware were presented by a sales representative of IMSATT Corporation. The providers asked questions pertaining to the flexibility, record keeping, hardware requirements and success of the system. At many planning meetings, the sales representative assured the providers that the system had all the attributes they requested.

In addition, the eight agencies worked together to design a pilot program to submit to the National Institute for Literacy for support. Prior to submitting the proposal, the Commission secured a local match of \$150.000.

#### **OBJECTIVES AND PROGRAM DESIGN**

The Commission prepared the application to the National Institute for Literacy on behalf of the eight providers. However, the objectives and design of the project were collaboratively defined by all the participating agencies after the funding was confirmed. The following section details the program design decisions including:

target population
participant selection
size of sample
length of pilot
provider agency requirements
teachers' requirements

requirements of learners
tracking and testing mechanisms
teacher training
use of funds
learner support
roles and responsibilities



These decisions were made collaboratively by the staff of the eight provider agencies, the Commission and Drexel University's Office of Computing Services.

#### **Target Population**

Because the pilot would test the feasibility and impact of home-based computer assisted instruction, participants would be selected from among those adult learners who had a minimum of a fifth grade reading level based on the teacher's estimation. This would ensure that the learner's skills were high enough to read the basic skills courseware and follow the directions. IMSATT indicated that a learner with a third grade reading level could operate and benefit from the system. However, the participating teachers' review concluded that a minimum of a fifth grade level, (intermediate level), would be needed to navigate through and learn from the system. CYBIS has lessons geared for earlier learners, but coupled with the fact that the computers would be in homes, not in a lab with an instructor, the teachers felt lower-level learners might become confused or overwhelmed. A ceiling of an eighth reading level was established to enable the pilot to test the impact of the system on intermediate learners.

Demographic characteristics beyond reading level were not defined. Nevertheless, 90% of the participants would be public assistance recipients, unemployed or underemployed individuals or those on fixed incomes simply because that is the profile of who receives services from these eight agencies. Two of the programs offer ESL instruction exclusively. Two other programs direct their services to women, therefore the overwhelming proportion of the participants would be females, many of whom were single heads of households. Because of the disadvantaged economic and educational circumstances of the learners who typically seek the services from these eight providers, it was anticipated that 90% of the participants would not have any substantial experience using computers.

#### Size of the Target Population

While there was great enthusiasm to undertake this effort, the providers felt that a small number of participants from each agency would make the pilot more manageable. The steep learning curve associated with learning to use advanced technology was seen as the greatest obstacle. With a smaller sized pilot it was felt the teachers would be able to ensure their own learning while still delivering quality



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instructional and support services for the adult learners. The other factor limiting the pilot size was money. Each participant needed to have a computer and a modem. .

#### Participant Selection

In addition to defining the target population, the providers had to decide a common means of selecting participants. Random assignment to the pilot was discussed to help ensure the statistical validity of the outcome. However, each provider placed a higher value on student choice and was reluctant to assign a learner who did not want to participate. Furthermore, the programs felt that random assignment often leaves those who are not selected with a sense that they were misled or cheated. The possibility of choosing a random sample from among those who were interested in being involved was also discussed. However, the providers felt that they could not assure learners who were not selected a chance to participate at a later date. Providers did not want to raise learners hopes without any certainty that they would ever have access to the technology. Providers felt that any one of these negative scenarios would undermine the overall credibility of their program. Since computers were going to be loaned to the learners, the providers wanted to be sure that every participant in the program would reliably care for and return the computer at the end of the pilot. In fact the selection of participants was done in three ways:

Self selection - teachers discussed the projects or put up announcements. From among those who expressed interest twelve participants were selected. The teacher screened-out those who did not fall within the specified reading level, those who could not be trusted to return the equipment, or those whose attendance or work habits indicated a lack of focus on achieving their learning goals.

Teacher identified - teachers recruited specific individuals for participation in the program based on reading level, student performance and regular attendance.

Class identified - programs designated one full class of intermediate level learners to participate in the pilot.



The participating agencies encountered no difficulty recruiting participants for the pilot. Most programs had more individuals interested than they were able to include, a testimony to the allure of having a computer at home.

#### Length of the Pilot

The pilot was to last one year. The group felt that providing learners with access to the on-line system for six months would produce sufficient data for the pilot. The time-frame was as follows:

Oct. - Nov.

Start-up period, teacher training

Dec.

On-site learner training, computer distribution

Jan. - July

Learners on-line

Aug. - Sept.

Compilation of data, preparation of the final report

Unforeseen, yet very common, obstacles stood in the way of meeting the goals of this time line:

- 1. Contract negotiations between IMSATT and the City of Philadelphia were quite lengthy;
- 2. Logon protocols needed to be developed and re-written on several occasions;
- 3. The purchase of the computers was delayed by a market shortage of the desired equipment;
- 4. The assessments took longer to administer than anticipated;
- 5. Winter holidays interrupted the computer distribution process; and
- 6. Programs' academic year ended before a full six months of on-line instruction.

Also, less common difficulties impeded certain learners from beginning their instruction, while others did not encounter these problems:

- 1. Some learners' homes had antiquated or unusual telephone wiring, which inhibited their access to the on-line services;
- 2. Distribution of computers to the learners homes was quite complicated since most of the learners and teachers did not have cars;



- 3. Ten computers were MS-DOS based machines and required a different log-on protocol from the other 98, which were Apple/Macintosh computers;
- 4 Bell Atlantic changed the planned log-on protocols on the very week that the computers were distributed.

As a result of these obstacles, learners did not begin to use the system until the beginning of January (December was the expected learner start-up month). The delayed start-up date, combined with the fact that several of the adult education providers do not offer classes past mid-June, afforded the majority of the learners only four months on the system.

#### **Provider Agency Requirements**

In addition to full participation in the planning of the pilot, each provider agreed to the following expectations:

- 1. Identify one teacher who would be primarily responsible for the implementation of the pilot project from the first stage of teacher training to the final phase of the evaluation;
- 2. Attend monthly meetings to share progress and learn about system updates;
- 3. Provide all necessary pre/post testing data, complete teacher logs, and help learners file for welfare payments to cover the monthly subscription costs for the on-line services;
- 4. Implement motivational activities to encourage learners to utilize the on-line services at least six hours a week for the full six months;
- 5. Provide classroom instruction which could be complemented by the lessons on the computer-assisted program
- 6. Collect the computers at the end of the pilot; use as they wished within their agencies.

#### Teacher requiremen.

Program administrators agreed that the designated teacher would be released from their regular responsibilities to attend the training sessions at Drexel University. In addition, the teachers were expected to allot class time as needed to discuss the on-line operations and problems. Teachers were expected to complete



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logs outlining their own progress with the system, methods for integrating the computer lessons with their classroom materials and notes about learner progress reactions. In addition, each teacher volunteered to be on-line one evening a week or a Sunday morning to answer the queries of learners who were on the system (See Attachment #2, Instructors On-Call Schedule).

#### Learner Requirements

While learners did not participate in the planning process, the providers developed a limited set of expectations with which each potential participant needed to agree (See Attach. 2, CFL Learner Agreement). These expectations included:

- 1. Taking care of the computer and agreeing to return the computer at the end of six months;
- 2. Logging-on to the system for at least six hours a week;
- 3. Experimenting with the on-line means of communication;
- 4. Completing all pre/post testing;
- 5. Keeping learner logs of how they felt and what they learned;
- 6. Attending two project-wide meetings with the Commission.

#### **On-going Communication**

In order to assure the greatest level of cohesion among the eight programs and to provide support for the teachers, monthly meetings were established. The monthly meetings were expected to be two to three hours in length. In addition to meetings, the teachers communicated regularly by telephone and through the E-mail and electronic bulletin boards. All electronic mail comments have been codified by courseware comments, system comments or general comments. These comments are attached as they are quite instructive — they indicate the growing level of sophistication among all parties involved and the extraordinary level of teacher frustration caused by the technological weakness of the model. Despite the exasperation that is expressed, the teachers persevered providing the inspiration and capability needed for implementing the pilot project.



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#### Tracking/testing Mechanisms

Each of the participating agencies agreed that both traditional and non-formal assessment instruments needed to be employed to fully capture the impact of the pilot. Reaching agreement on the testing methods caused the most conflict among the providers and between the providers and the Commission. Initially all parties, including the Commission, expected to rely on the computer-based testing instruments which are an integral part of the CYBIS software to gauge the impact of the model on learners. However, the computer based instruments were reviewed and all parties determined that they would not capture the impact of the integration of the computers with classroom instruction. Thus, there was an agreement that a recognized standardized test, a standardized self esteem assessment and learner/teacher journals would be used to gauge progress. The two standardized instruments would be given to the learners in a pre and posting testing fashion. The two ESL programs expressed reluctance to use these instruments. However, they did not suggest any other instruments and said that they would be willing to try the agreed upon protocol.

#### **Teacher Training**

More extensive teacher training and support were required than anticipated when the project was envisioned. The planning meetings became increasingly focused on teacher training methods and processes which are described in Section Three of this report in great detail. Drexel University and Control Data Corporation took the lead in designing and implementing the teacher training.

#### Use of Funds

The Commission provided a grant of \$7,000 to each provider to help offset the costs of teacher and administrator time to implement the project. Agencies were free to use the funds as they wished as long as the expenditures were directly related to the project. Each provider submitted a projected budget to the Commission to outline their expenditure plan. In addition, the Commission contracted with Drexel University for teacher training and on-going technical support services. A contract was awarded to IESD for third party assessment and evaluation services. The balance of the funds were used to purchase computers, modems, on-line fees and to cover



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the Commission's monitoring and administrative costs. All parties were apprised of the use of funds.

To offset 50% of the on-line fees incurred directly by the Commission (\$20 a month per learner), the Department of Public Welfare (DPW) agreed to reimburse the Commission for these expenses for pilot participants who were public assistance recipients. These funds were made available from DPW's "Books and Tools" allowance which provides up to \$500 per year per recipient. Each agency agreed that they would either help their learners apply for these funds or reimburse the Commission for this portion of on-line costs.

#### Learner Support

The agencies agreed that the success of the pilot rested on strong learner support activities. It was envisioned that early support activities would be critical to helping learners overcome frustration with learning to operate and navigate the on-line system, especially since 90% of the learners had no previous computer experience.

In addition to allotting class time to discuss computer problems and progress, the teachers were expected to be in contact with learners via the E-mail systems to offer encouragement and support. Programs were encouraged to offer certificates and mementos of progress to learners who worked on the system at least six hours a week, or who showed significant progress. Some programs were unwilling to insert such incentives as it was not consistent with their philosophy or because it would cause problems for those who were not given access to the pilot but attended classes at the agency. Nevertheless, each agency agreed to explore creative ways to motivate and encourage learners to use the on-line system.

Teaching learners to utilize the on-line communications systems was another aspect of learner support. The teachers felt that once learners could communicate with one another and with their teacher, they would increase their system usage. Thus, the teachers planned to instruct the learners to use the on-line communication structures after learners had command of the basic system operation principles. It was anticipated that the learners would be ready for this level of sophistication in their third month on the system.

The Commission also arranged for city-wide pilot meetings to help build a sense of peer support beyond individual programs.



To help ensure that the computers were returned to the agencies after the six months, the Commission agreed to offer the learners a certificate and letter of recommendation which indicated the learner's progress in the program and reliability.



#### Division of Roles and Responsibilities

The following schematic of partners' roles was agreed to by all parties: 17.3 17.3 Home-besed learning facilitation Classroom Instruction Learner recruitment · Shours/week .. 6 mo paroject Learner follow-up On-line volunteer - Assessment 8 Agencies Learners Assessment Tecnical Support CDC Office of Computing Services Technical process development Hardwardsoftware evaluation Drexel University On-going support Teacher Training System repair IMSATT Provider Software · Please Links Bell A tlantic Monitor/Assessment follow-up Purchasing contracting grant Mayor's Commission OH Literacy Equipment repair Learner support •3rd Party Impact Evaluator IESD 93



#### LESSONS OF THE PARTNERSHIP

In retrospect, it was apparent to all parties that the collective inexperience with advanced technology of the literacy providers hindered the capacity to make the best possible decisions. Many critical questions which needed to be asked in the early planning stages of the project were not even pondered. The most deleterious effect was manifested by naive expectations of the software program. In addition, some hardware concerns, while more simplistic, were also not considered until the pilot was well underway.

A hands-on demonstration of the software program was not requested until far into the planning process. A sales representative from IMSATT, present at many of the planning meetings, provided assurances that the system would meet the diverse instructional and record-keeping needs. On one occasion, he provided a demonstration of some of the lessons and parts of the record-keeping system. However, a hands-on session was not offered. The providers were specifically told that the system provided for individualized instruction which could be learnerdirected, and that whole language as well as more routine instructioned approaches were available. In addition, the system was purported to offer extensive record keeping capabilities to track each learner's progress in each module of instruction. The providers stressed the need for teachers and learners to design their own instructional programs without pre and post test sequences. IMSATT assured the providers that the system had a high degree of flexibility. Specifically, the providers understood that they would be able to assign individual lessons to individual learners simply. They also were under the impression that writing and sending messages could be done easily. While the system does have these capabilities, they could neither be done simply or reliably.

Drexel University offered technical expertise throughout the planning process. Their experience in purchasing and designing software packages and instructional programs which integrate technology was invaluable. Nevertheless, our project was undermined by the misleading software information received during the process, and by the naiveté of the providers. When finally given the opportunity to work on the system, the providers learned that many of the attributes that were highly valued by the adult educators were in fact not available or not as flexible as we required.



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While the provider agencies were dismayed by the limits of the software, they remained excited about the capabilities that did exist and the opportunity to provide learners with on-line access to instruction from their homes. The absence of the creative virtues that were expected in the system required a more traditional approach to instruction. The teachers, however, remained optimistic that the learners would benefit and that they would collectively learn a great deal by moving forward with the fundamental design of the project. It is also worthwhile to note that the overzealous salesperson was not representative of the staff of IMSATT, which throughout the implementation process were very realistic and helpful.

In fact, although the project may have been implemented more effectively if the software package had been able to meet the expectations presented by IMSATT, the partners' critical learning process would have been less fruitful had the process gone extremely smoothly. The Commission, Drexel and each of the providers gained invaluable expertise in evaluating software and working with software and hardware suppliers as a result of the obstacles which had to be resolved throughout the early stages of implementation.

#### **Consensus Among Parties**

While the Power Learning Project was able to achieve all of its stated objectives, the one key administrative/management finding which inhibited the fullest possible impact of the model was the conflicting goals of the many agencies involved in the pilot. Although each of the partners agreed with all aspects of the program design, unstated goals which were particular to individual agencies had a significant impact on the participants.

For instance, all of the provider agencies agreed that their teachers would fully integrate the computers into the instructional program. Yet, five of the eight programs implemented the home-based learning as an add-on rather than an integral component. In these instances the goals associated with larger grants or programs took precedence and the computers were simply an addition to existing classes.

The two university-based programs which participated failed to have the administrative commitment needed for adequate oversight or to support the



teacher involved. As a result, both university-based programs experienced teacher turn-over in the middle of the pilot. As the administrator of the project, the Commission noted a correlation between the overall size of the participating agency and the degree to which the project was administered according to the model -- the larger the institution, the less likely the pilot goals were achieved. This may have been caused by the fact that large institutions are managing programs with numerous grants and the funding associated with this project was too small to warrant their attention.

The two ESL programs were quite active, and made sure their learners were online and used the courseware. However, they provided none of the data necessary for the impact evaluation. Further, both agencies admitted learners who were below the agreed upon 5th grade level, thus, decreased the sample size of the pilot. While they ascribed to the principles of the model, they did not share a strong commitment to measure the impact of this pilot for the benefit of determining the potential for replication.

Two volunteer tutoring organizations participated in PLP. While their teachers were active in the planning, they significantly diverted from agreed upon objectives upon implementation. Both agencies admitted learners who read below the fifth grade level and one of the agencies did not offer classes or sufficiently carry-out data collection efforts.

While all of the providers understood the premise and the specifics of the model, their own organizational goals, including receiving twelve computers and modems and \$7,000, outweighed their commitment to the needs of the pilot.

The software company provided a great deal of support to this project. However, due to their own goals for capitalization and financing, the price of the service was relatively high and was not consistent with the state of the software package. Log-on problems, integral to the software's home delivery, constantly interrupted service, and numerous aspects of the software were inaccurate or improperly routed Nevertheless, the PLP received no relief from the cost of the software. More importantly, the underdeveloped state of the software inhibited the learners' ability to use it to its fullest, thus undermining the potential impact of the model.



A key accomplishment of the pilot, was the degree to which advanced technology expertise was disseminated among many providers in Philadelphia. However, the high number of providers involved also diminished the Commission's ability to control the pilot to a sufficient degree to clearly determine the impact of the model.

#### COSTS EFFECTIVENESS OF HOME-BASED LEARNING CAI

In comparison to traditional models of delivering adult literacy instruction, the Power Learning Project was an expensive undertaking. On a per learner basis, \$2,440 was expended. However, if the evaluation and teacher training costs are taken out of the calculation, the cost drops to \$1,620 per learner. This is still a hefty sum relative to commonly-held per learner costs.

The marginal cost per learner in a replication project, however, drops to \$1,000 per learner if the cost of the hardware is amortized over four years (four years represents the useful life of the equipment).

Costs can be lowered by decreasing the costs associated with the local phone link to the on-line system. Local phone companies, large companies who are on fiber-optic networks or other carriers such as cable companies may be able to provide funds or an in-kind service to exempt the adult literacy providers from these costs.

Based on the experience of the adult educators in the Power Learning Project, the \$1,000 expenditure increased the rate of learning of those learners who used the system enough to warrant the additional expenditure. They forsaw the possibility that many learners could reach their learning goals more quickly through homebased CAI, thus exiting programs at a faster pace and making room for new learners.

#### FAMILY LEARNING -- AN UNEXPECTED OUTCOME

Although the PLP model was not intended to serve individuals outside of the target audience, in every single group teachers noted that family members and



neighbors used the computer. Many of the learners who were single parents told their teachers and project administrators that they worked together on the computer lessons with their young children. In the early stages of the project these parents said their children helped them use the computer and work on math or reading skills. As the project progressed and the parents' skill level increased the roles reversed and parents began to provide the lead in the home instruction. Although this was not an intended consequence, the degree to which this occurred may point to valuable areas of exploration in replication efforts.

The placement of the computers in the homes of adult learners also resulted in the assignment of a new social role in their community. Many learners invited neighbors and extended family members to their homes to work on the computers. Some learners had a schedule by their computer detailing when each neighbor could work on the computer. According to these learners, they had not related to their neighbors in this way in the past and they expressed pride about being viewed as a educational resource to their neighbors.

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# SECTION 2: THE CYBIS ON-LINE EDUCATIONAL SYSTEM: HARDWARE AND SOFTWARE

#### HARDWARE PURCHASE

IMSATT Corporation offered to sell "dumb terminals" to the Commission. These terminals were quite inexpensive, and therefore afforded the greatest number of learners access to the system. The planning group, however, decided this was not an attractive option and that true microcomputers be purchased for the following four reasons:

- 1. Learners needed to become familiar with the operation of a computer and not come to know it simply as a dumb screen.
- 2. Stand-alone courseware which is not linked through an integrated learning system and which typically is subject specific, i.e., grammar, algebra, etc. could also be made available to learners, particularly where it might supplement the CYBIS courseware. Without a fully functioning computer, stand-alone software could not be utilized.
- 3. Dumb terminals could possibly present limits for future home-based learning endeavors which may rely on other courseware on diskettes rather than online.
- 4. Each of the agencies would be able to keep the computers at the end of the pilot and wanted to be sure that it was given the highest quality fully functioning equipment available.

One hundred and eight computers needed to be purchased to allow for 98 learners to participate and one base computer for each of the participating sites. Since most sites were either already using Apple Macintosh computers or wanted to build their capabilities on Apple Macintosh-based systems, all but ten computers purchased were Apple Macintosh. One agency wanted to ensure comparability with their existing computers and requested MS-DOS based machines.

The first step was to approach Apple to explore a bulk purchase of Powerbook 100's, portable computers with hard drives which would have been particularly useful to the agencies as well as more convenient and transportable. These low-end

<sup>&</sup>lt;sup>1</sup>Dumb Terminals: A keyboard-monitor combination which does not process information itself but connects with a remote computer (called a server). Users enter information through the keyboard. The information is sent to the server which processes the information and sends back a response which is displayed on the monitor. Dumb terminals are relatively inexpensive, but if they are disconnected from the server they are useless.



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Powerbooks may have been within our PLP's range, but Apple could not make 108 available within a month.

The next step was to find a used computer dealer who could meet the needs of the order and provide a 12 month guarantee. A competitive supplier who offered the computers for \$400.00 each including delivery and post-delivery quality assurance was located. However, the supplier needed three weeks to a month to assemble the total quantity. In addition to the used computers, a 2400-baud Zoom Modem was purchased for each computer. In making the purchases, Drexel University and the Commission were in close communication with IMSATT to ensure compatibility with the software.



#### **HARDWARE CONCERNS**

Ten significant problems were experienced with the hardware necessary to implement this project.

- 1. Learners did not have appropriate places to put the computers in their houses. Some had to disconnect and reconnect the computer because the only table available was a kitchen table or night table. In some cases electrical outlets were not close to those tables.
- 2. Frequently connections were broken between the microcomputer and the mainframe in the middle of tests, lessons, note-reading or writing. The reason for these broken connections was unclear. These interruptions had unpredictable consequences. In some cases users could log back on immediately, be taken to exactly to where they had been, and continue. At other times hours of work was interrupted and had to be repeated; a very daunting task. Using the Personal Notes section became a challenging experience. A user might spend twenty minutes composing a ten-line note (because of the response time) and then see that note completely disappear when the telephone connection was broken. This problem continued throughout the course of the project, and no real solution was devised. It did seem related to the connection; however, it was least bothersome when an 800 number was used.
- 3. Inexpensive computers were purchased which had re-built keyboards. These keyboards regularly malfunctioned and had to be sent back to the supplier. The most troubling aspect of our hardware purchase was that the supplier who offered a one year guarantee went out of business in the seventh month of the pilot. From that point on, the guarantee was worthless and many keyboards sit broken today. Given the declining costs of hardware, forthcoming projects may be able to afford new or higher-end rebuilt equipment.
- 4. The modems, which were bought new and have a seven year guarantee did not have sufficient built in error-correction capacity. When the Internet was utilized, there were frequent disruptions of service or an inability to connect. As a result, the phone to computer connection was not made correction approximately 50% of the logon attempts. While many learners initial were



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- unfazed by the flaws of the modems, the need to try logging on five or six times before connecting frustrated both learners and teachers.
- 5. Learners who had the call-waiting service needed to have a modified automated logon procedure. Otherwise an incoming call disrupted the CYBIS connection, and learners needed to log on again. Either \*70, (for touch-tone phones) or 1170, (for pulse phones) had to be added to the logon phone number (whether a local number or the 800 number).
- 6. Learners with extension phones had to make sure no one else in the household used a phone in another room because this also disrupted their on-line dialog and disconnected learners from the system.
- 7. Unpredictable horizontal or vertical "squiggles" (as one learner called them) which seem to be caused by random static electricity occurred on some home lines, at some times, but not at others.
- 8. When the machines went through Bell Atlantic's Intelligate system, the software would not run on the CGA monitors. There was some kind of incompatibility, and the screens would just blank out. When they went directly through an 800 number the computers worked fine.
- 9. A certain vital combination of keystrokes was unusable on MS-DOS computers. Every other keystroke combination worked fine. Control Data Systems, Inc. was aware of and able to remedy this problem immediately when they were alerted to it.
- 10. Geometry courseware appeared incorrectly on the screens of the Apple Macintosh computers used by most of the agencies. Because the software was originally designed for EGA monitors, graphics appeared flattened on the Macintosh monitors. This was not a problem in the text-based courseware, but in geometry, circles became ovals and squares became rectangles. Very few learners in this project tried to utilize the geometry courseware.



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# The following recommendations should be considered when purchasing hardware for a home based learning project:

- Hardware purchases must be done through a formal contract rather than a consumer purchase mechanism to ensure that warranties are guaranteed for the life of the project and beyond when possible.
- All aspects of the software should be tested on the hardware that is planned for purchase before the purchase is executed
- Modems should be tested for as many communications protocals as possible before a purchase is executed
- Participating agencies or any sub-contractors should view the software on the recommended hardware before a purchase is complete
- A ratio of ten extra computer systems per 100 learners should be purchased so they can be loaned to learners while defective computers are repaired
- At least one system should be purchased as a demonstration model for each participating provider agency. When possible a computer should also be lent to the teacher so they can log onto the system in the evenings conveniently.
- At least one compatible printer should be purchased to enable the learners to print out their work at the community learning site
- When possible one type of hardware package should be purchased project-wide.
   Uniformity will avoid incompatibility issues among and between the keyboard, modem, monitor and micro-processor. Each component's unique parameters can create obstacles to implementation.
- Capture the serial numbers on all equipment before it is distributed offsite.



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# **HOW DOES THE CYBIS SYSTEM WORK?**

A brief description of how the CYBIS system works is provided to help explain the design and implementation of the teacher training carried out by Drexel University's Office of Computing Services.

- 1. A participant (either learner or teacher) connects their microcomputer to a modem attached to a telephone line.
- 2. After turning on the modem and computer, the participant initiates a procedure called a logon.<sup>2</sup>
- 2. The microcomputer then sends an electronic message through the modem which dials the telephone number of the mainframe computer. Participants can usually hear the dial tone and the ringing through the modem.
- 3. The mainframe answers the telephone, interprets the signals that the micro is sending, and accepts the call. This is called the **handshake**.
- 4. The mainframe sends a message back to the micro-computer asking for confirmation that the individual using the system is a registered participant. In the CYBIS system, there are three confirmations a participant needs to make during the logon process. They must type a user name (the unique name which each participant was given by Bell Atlantic), a user group (each of the eight literacy provider agencies in the PLP had their own user group, and the teachers had their own group list), and a password (a unique word that each user chooses for herself). This both ensures privacy and that unauthorized users would not be able to use the system.

<sup>&</sup>lt;sup>2</sup> The term "log on" or "log in" has several meanings: the **verb** to log on means to use an access procedure to connect a microcomputer with a mainframe computer through a telephone line, as in, "She will log on tonight." The **noun** logon is a short-hand term for the procedure itself, as in, "This logon is too complicated, it has too many steps." Logged on means that the user has connected with the system, as in, "He was logged on last night for two hours," or is currently on the system, "She's logged on."



Illustration 1: Sample logon screen showing user name and user group

Frider, November 19, 1992

10:25 em

Ş Weerê

frime Time





Welcome to the "cdc" system, a service of Control Data Corporation

Enter your user name, and then press NEXT. ben

Enter your user gr up, and then press SHIFT-STOP. phi88889

While holding down the SHIFT key, press the key labeled STOP.

5. Participants then choose what they want to do.

Academic Menu

BASIC SKILLS

GENERAL EDUCATIONAL DEVELOPMENT (GED)

MATH

SCIENCE

OTHER ACADEMICS

PREVIOUS MENU

Please click on your selection

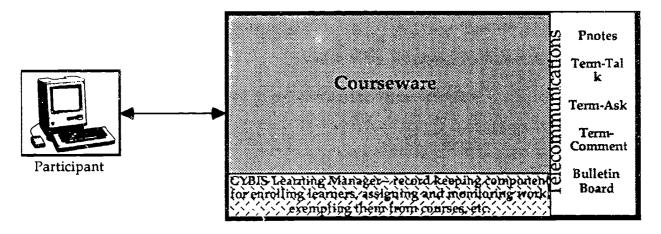
PNEXT PACK PLATA PLAB PHELP PSTOP

6. When finished with what they are doing, users may utilize another part of the CYBIS system, or log off (quit). The system keeps track of what they did. If they used the courseware, the system tracks how long they engaged in each lesson, and how well they did.



### OPTIONS AVAILABLE TO POWER LEARNING PROJECT PARTICIPANTS

Illustration 2: Representation of Direct Home-based Microcomputer Contact with the CYBIS Mainframe Computer



The CYBIS mainframe computer has a variety of functions which were available to some or all of the participants in the Power Learning Project.

Choices in the CYBIS system available to all PLP participants included:

- a. Educational courseware. Learners have a menu to choose from which includes most of the academic courseware and a wide variety of games.
- b. Personal notes (P-notes) Users can send electronic messages to learners, tutors, support people, and system administrators. (These messages can be sent to individuals on the CYBIS system, not necessarily in the Power Learning Project. One of the most entertaining correspondents who communicated with PLP participants was from Sweden). When the recipient logs back on to the system, he or she receives notification on the first screen that there is "mail" for them. He or she can then read the message and save or discard it if so desired.
- c. The Bulletin Board. Any user of the CYBIS system can leave topic-based messages which are available to all other users. There are sections of the bulletin board devoted to politics, education, entertainment, etc.



Choices available to teachers and administrators on CYBIS included all of the aforementioned aspects and:

- d. The entire range of CYBIS courseware.
- e. A display of learner records, including time on each educational lesson and progress through the lessons.
- f. The ability to monitor students as they work, so to help diagnose problems they are having.

Choices available to administrators on CYBIS included all of the aforementioned aspects and:

g. Access to the CYBIS Learning Management component, where they can administer learner records, including enrolling and withdrawing, prescribing curricula for learners, and exempting learners from courses.



#### **DESCRIPTION OF THE CYBIS SYSTEM**

The underlying assumption behind the PLATO system was that the content to be learned is fixed, while instructional time can vary. Such an assumption was viewed as a major departure from traditional instruction where class time is constant but the amount learned varies.... (This view) matches well with competency-based instruction and ... mastery learning... (and) assumes that knowledge is sequential, incremental, and can be broken into parts.3

When a learner logs on and chooses a curriculum, she is given a diagnostic test which places her in the curriculum at the appropriate course. The assessments have between sixty and one hundred questions each. As soon as the learner makes several mistakes the assessment concludes. If she answers all the questions correctly she can pass out of the course in to the next course. Otherwise, the assessment places her in an appropriate course. Within the course she receives another diagnostic test, and she is "branched" to the next appropriate lesson in the module.

In the appropriate lesson she receives instruction that builds sequentially on what she already knows. There is an advance organizer, telling the learner what she is going to study. There may be a two or three question assessment which can pass the learner on to the next level. Otherwise, there is interactive instruction where the learner gets information about the topic she is studying, answers multiple choice questions based on the material she has studied, and finds out how she did. If she mastered the material (usually to a 80-90% level of correctness), she goes on to the next "higher" lesson. If she has not mastered the material, she goes through the lesson again. After finishing all the lessons in a module, she receives a review assessment, in which she either moves "up" to the next module or returns and reviews the material until she does master it. After she finishes all the lessons in a module she takes a review test, and if she masters it then she goes to the next course. The lessons are between fifteen and thirty-five minutes in length. They are designed to proceed in small steps, with frequent reinforcement in the form of "Nice job" and "Good going" comments. There is a great deal of review, so learners get to practice their learning many times.

<sup>&</sup>lt;sup>3</sup>Turner, pp. 4-5



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There are thousands of hours of lessons available on CYBIS <sup>4</sup> but only some of these are appropriate to adult literacy learners. Lessons are grouped into modules, modules into courses, and courses into curricula. An example of the relationship of lesson to module to course to curriculum is the basic skills mathematics curriculum (117 hours) which has thirteen courses: Basic Number Ideas, Addition 1 and 2, Subtraction, Multiplication 1 and 2, Division 1 and 2, Fractions 1 and 2, Decimals, Ratio, Proportion and Percent, and Geometry and Measurement. These courses take between six and sixteen hours to complete. Each course has between six and twelve modules, each of which is usually composed of three lessons.

Theoretically, all of the courseware was available to the participants in the PLP but practically the following were the appropriate full curricula from which they could have chosen:

Name of CYBIS Curriculum	Hours Available on
CYBIS	
Algebra	75
The Basic Skills Curriculum	
Reading	180
Grammar Rules	56
Basic Math	117
Introduction to Computer-Based Education	8
English as a Second Language for Spanish Speakers	64
General Educational Development Learning System:	
Mathematics	33
Reading	42
Writing	46
Science	42
Social Studies	40
Computer Awareness	5
Geometry	45
Metric Number Conversion	1
Total Number of Available Hours of CYBIS Courseware	762

<sup>&</sup>lt;sup>4</sup>See **CYBIS** Courseware Catalog for lists and descriptions of the available courseware in the academic, technical, data processing, professional development, management, and finance areas.



#### **TECHNICAL AND COURSE-RELATED CONCERNS**

When the agencies involved decided to participate in the Power Learning Project most of their questions centered around the curriculum-- would it be flexible enough for agencies which support the language experience approach, would it be appropriate for Asian ESL learners, or did it relate to the current GED test. There was little concern expressed about the technological aspects of the program. This may be because technological concerns were downplayed during the discussions between IMSATT and the agencies. It may be because of the confidence they felt towards the support system (Drexel, Bell Atlantic, IMSATT, and Control Data). It may be that it seemed like a trivial issue because the project would never have reached the stage of implementation if the technology was not ready for it. However, none of the administrators, teachers, or even support staff fully understood the system or the technology enough to ask some of the most important technical questions.

Bringing on-line real-time educational software into people's homes is **not** a technically trivial problem. Several of the most onerous, time-consuming and participant-frustrating problems with CYBIS were directly related to what were presented as relatively minor technical issues at the beginning. It was unclear to the support staff at Drexel which support problems were their responsibility, which were Bell Atlantic's, which were IMSATT's, and which were Control Data Corporation's. As Drexel developed the knowledge needed to resolve the problems over the course of the project, they were able to provide answers more quickly.

Information needed to get from a microcomputer in Philadelphia through a telephone line to Control Data's mainframe computer in Minneapolis. The mainframe then needed to process that information, determine what response was necessary, and send it in a timely manner over the telephone line back to the micro in Philadelphia.

Studies have shown that the more quickly individuals receive a response (preferably between .3 and .6 seconds), the more motivated they will be and the more they will learn.

Throughout the course of the project there were four different ways used to accomplish this communication. The fastest and best of these processes was also the most expensive. The slowest was the least expensive, taking approximately 1.5



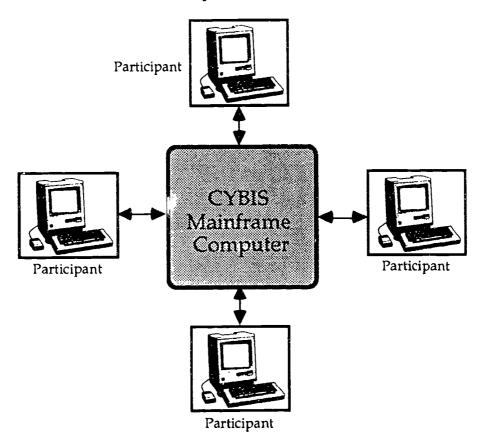
seconds to send and receive one typed character. This is very slow -- unacceptably slow -- according to both expert sources in the field of electronic mail and the teachers and learners in the PLP. Students can learn to slow down when they are typing in answers to a drill and practice session, so it is marginally acceptable for this purpose. But it is far too slow to encourage fluent writing/typing. When using the direct phone line the response time (per keystroke) was between .2 and .3 seconds. A person can compose a paragraph at this rate, but throughout the course of the project this speed was only available to teachers, because of funding issues.

Learners were very patient as their teachers were trained, networking software was adapted, and several sets of passwords and logons were developed for the various protocols. But since these issues were not resolved before the beginning in the project, some learners became upset, confused, bewildered, and "turned off" to the computer, as was attested in cases where learners logged in to the system before the logon process was perfected. (See student comments.) Below is a record of the evolution of the logon process in the PLP.

(logon 1) In October, Drexel staff were given a logon procedure which worked on DOS-based computers, even though it had already been agreed that the majority of the agencies would be using Apple Macintosh computers. It took several weeks before Control Data provided a Macintosh logon.

(logon 2) The Macintosh logon, received in mid-November and distributed to the literacy agencies in late November/early December, utilized a free 800 telephone line provided by IMSATT. It involved a set of 12 steps before even getting into the educational software. Once an individual logged on, the program worked well and quickly. Teachers used this system until early January.

Illustration 5: The Participant Connection: Direct to CYBIS



(logon 3) The teachers felt that the 12-step logon process was too cumbersome for learners. Logon procedures are not forgiving, and there were too many places where a single mistyped or forgotten character would throw the user off of the system. It was the understanding of the Drexel staff that Bell Atlantic was responsible for simplifying the logon. They were unable to do so, and the problem was then referred to Control Data. They were able to create an automated logon which required only a single simple step to initiate. Making this change, which involved less than 20 lines of programming, took over three weeks to perfect. It involved numerous negotiations among teachers, Drexel, Bell Atlantic, IMSATT, and Control Data. This time lapse occurred because, despite the assurances of IMSATT that the program would work fine on Macintosh computers, neither Control Data nor Bell Atlantic were familiar enough with Macintosh to come up with the solution quickly.

Each 800 call was very expensive (approximately \$12 per hour of connect time). IMSATT informed the Drexel staff of the need to switch over to the line Bell



Atlantic had allocated through their Intelligate service, which would be much less expensive.

(logon 4) The Intelligate system added a new level of complexity. Since Intelligate had its own separate 4-step logon routine, a new simplified logon needed to be developed which would get users first into Intelligate, then automatically connect them with the CYBIS system. Again there were negotiations among teachers, Drexel, Bell Atlantic, IMSATT, and Control Data, again there were a number of trial-and-error attempts, and again it took three weeks to resolve these problems so that every learner and teacher could log on from their home bases with a simple single command. As can be seen from the responses from teachers and learners at various times during the course of the project, this was agonizing and created a somewhat negative mindset, although eventually it worked.

Automating the logon involved the learner's computer sending certain messages, waiting for a reply from the mainframe, sending another message, receiving another reply, and so on in a "conversation" where each computer sent and received between 10 and 20 comments until logon was finished. Several times during the course of the project the administrator of the mainframe changed the replies they sent out without informing anyone involved in the PLP. In fact, once they were specifically asked if they had changed their computer's script and they said they had not. The changes may have been as simple as sending the word "following" instead of the word "Enter," (see illustrations 7 and 8) or asking that users input the number 1 in a different place. However minuscule the change, it would disrupt the flow of the logon procedure and render it unusable. It often took learners several days to report this to their teacher, several more days before the teacher ascertained that this was not an individual's difficulty, several more before it was communicated to Drexel, and perhaps several more before it could be fixed. This happened many times throughout the project, from January through June.

Illustration 6: Automated Intelligate Logon, 10/23/92-1/12/93

⊠ flutodial	Phone number:		
<ul><li>Tone</li></ul>	9289800		
O Puise	Network Type:  © Direct Other		OK Cancel
Network Promp			
		^#^m^#^m	
^*^*^*^*below:		2158756602^m^#^	#^#^#^
^*^*below: 200202^m^*^*			
^*^*below: 63		6315^m	
^*^*^*ENTER.		1 ^m	
^*^*^*following	g:	^*1^m	

Illustration 7: Automated Intelligate Logon, 1/13/93-4/26/93

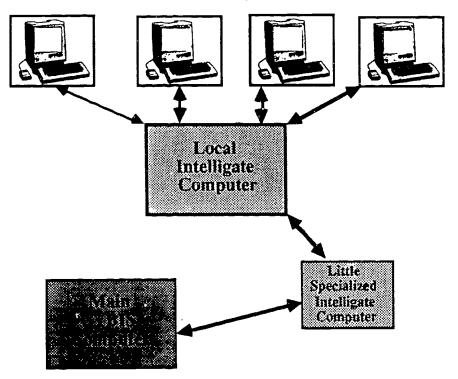
⊠ Autodial	Phone number	:
<ul><li>Tone</li></ul>	+70,9289800	
○ Pulse	Netw ① Direct	ork Type: Other OK
Network Promp	t	Macintosh Response Cancel
		^#^m^#^m
^*below:		3019893717^m
below:		gateway^m
below:		1685^m
^*ENTER.		1 ^m .
^*ENTER.		1 ^ m

Using the Intelligate system also slowed down the communication with the CYBIS mainframe. Now, not only did information need to go from a micro to a mainframe and back again, but it had to go from a microcomputer, be converted so it could be read by Bell Atlantic/Intelligate's local mainframe, reconverted on the way out to Control Data's Minneapolis mainframe, sent back to the local mainframe and converted coming in and again going back out to the micro sitting on the learner's desk. (See illustration 8.) Using this logon, it took approximately 1.5 seconds to send and receive each character. Given the number of processes and



protocols the message goes through, this technology is truly amazing on a theoretical level. Judging from the experiences and comments of the learners and teachers, it was almost unusably slow. Learners could slow down when they were typing in a single letter answer to a multiple-choice drill and practice session so it was marginally acceptable for this purpose. But it was far too slow to encourage fluent writing/typing. Since on-line communication and letter-writing was a significant part of the reason several agencies joined the project, this slow response time proved a serious disincentive to using the system. When using the direct 800 phone line the response time (per keystroke) was between .2 and .3 seconds.

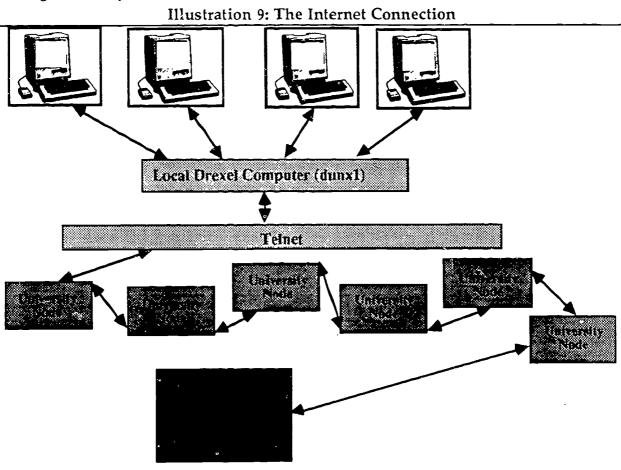
# Illustration 8: The Intelligate Connection



(logon 5) After receiving numerous complaints from learners and teachers about the slowness of the communication, a meeting was held. Bell Atlantic indicated that the company was unwilling to invest the approximately \$16,000 necessary to upgrade their mainframe so that the conversion protocols would be accomplished more quickly. Drexel offered to allow the PLP to utilize their *Internet* access. The *Internet* is a connection subsidized by the Federal Government and available to most universities for a relatively low cost. By this time the Drexel staff understood enough about how to automate the logon process to devise a functioning model.



Again, getting the right software (which was completely different from the former software), getting permission from Drexel's administration, and perfecting the logon, took another three weeks. Unfortunately, while faster than Intelligate, it was still too slow and undependable to be an ideal solution. The *Internet* works on a node system, so that a message sent to Drexel may be bounced to two, six, or seventeen nodes at different universities throughout the world before it reaches Control Data's computer. So sometimes learners would receive keystroke responses in less than .5 seconds, while other times they would be over 1.2 seconds. An average response time over the *Internet* was slightly over .8 seconds. This would have been marginally acceptable, but Drexel only has a limited number of modems connected to outside lines, so occasionally learners logging on were unable to get through to the system.



(logon 6) Late in May, IMSATT arranged for a connection through CompuServe, a well-known national computer network. This connection was fast, but again, too expensive for a long-term solution.

Throughout the course of the project, six <u>major</u> revisions in the logon procedure were necessary Other "tweaking" was also sometimes required (such as typing the number "1" after the entire logon procedure).

It was a matter of great concern to Drexel and the teachers and learners that it took so long to evolve a reliable, usable logon. An inordinate amount of time and energy was spent on developing what should have been a simple gateway into the program. Six different logons for a six-month project! This time could have been better used to support more complete integration of the system into classroom instruction, teacher training, or simply learner time on task.

In replicating this project, we highly recommend that the logon procedure be perfected <u>before</u> implementation. Because previous CYBIS Projects took place in networked computer labs, presumably logging on was simple and done by the administrator. Apparently no one realized how difficult it would be to operate the system from people's homes. IMSATT, Control Data, and Bell Atlantic all gave this issue scant attention, implying that it was not going to be a significant problem, and Drexel, MCOL, and the participating literacy agencies did not know any better. Thus, the entire project was delayed by nearly two months, and participants became frustrated by what should have been a minor technical issue.

# Logging on: Other Factors

Several other factors related to logging on to the system should be mentioned here.

Passwords: Each user of the CYBIS system either chose or was given a password, both to ensure that non-participants were not able to get into the system and so that learners' privacy would be protected from other learners and even teachers or system administrators, if they wished. Passwords also promoted a sense of control among learners, and a willingness to take chances which they might not have if they are being "watched." Early in the project, many learners had difficulty remembering and using their password correctly, and since the computer system permits no latitude in the logon procedure, each time this happened they needed to contact a teacher and relearn their logon. Once the systems were automated, this became less of a problem, because the automatic logon procedure (how a learner gets on the network and into the educational program) included their password. Other



unique, intermittent, or non-recurring problems came up and were solved on a case-by-case basis.

The Power Learning Project involved "conversations" among numerous network protocols (Mac to CYBIS to Mac, Mac to Intelligate to CYBIS to Intelligate to Mac, Mac to Internet to CYBIS to Internet to Mac, Mac to CompuServe to CYBIS to CompuServe to Mac). Finding ways to get these protocols to work together originally did not seem technically difficult, but doing it in ways that made the conversions transparent to adult basic education students proved to be a harder task than expected. Persistence was eventually rewarded, however, and by the end of the Power Learning Project these issues were largely resolved.



#### Other Courseware Concerns

For some of the learners the course-level assessment was a disincentive to consistent usage. The assessments typically took 30 minutes to an hour to complete. Learners understood that if they passed the assessment they could by-pass the entire course -- equivalent to eight hours of study -- but their feedback indicated that they felt the assessments were too lengthy. Whereas in the courseware the learners received frequent feedback, the assessments provided none until the assessment was completed. Many learners wanted to know how they were doing as they proceeded through the assessment.

In addition, because of technical problems experienced throughout the course of the project, learners were frequently thrown off the system. Often in the middle of a long assessment test, the system failed to store their answers. Learner logs indicated a very high degree of frustration in this particular regard. Some of the courseware instructions were at a higher reading level than the courseware to which it related. This caused problems for learners.

In one instance, learners completed a lesson, took the final test, and were routed, not to the next lesson or module, but back to the beginning of the lesson they had successfully completed. (After being informed about this error, CDC corrected their software, but a number of learners were bothered by this problem.)

These kinds of technical problems caused great frustration, confusion, and self-doubt, but also led to some important critical thinking about technology. For some of the learners, it seemed easier to doubt themselves or their understanding of a situation than it was to doubt "the computer." Others logically deduced that there was something wrong with the courseware. One of the triumphs of this project occurred when learners reached the stage (as many did) where they first questioned whether there was a hardware or software error when something unexpected or awkward happened rather than questioning themselves.

Because the software was developed over several years, there are some discrepancies in the way answers are indicated. In some lessons, an answer was selected by clicking on a letter a, b, c, or d. The courseware recognized the keystroke automatically and responded to it. In others, an answer was selected by typing a letter and pressing Return. The higher level readers seemed able to deal with



occasional inconsistencies by reading instructions when necessary, but it was not possible for the lower level readers to understand and carry out inconsistent directions. The instructions should be written at a lower reading level. A more graphic interface would be useful. Courseware giving auditory verbal directions would be most useful for ESL and low-level readers.

#### WHY EACH GROUP DID NOT AUTHOR ITS OWN CURRICULUM

In negotiations with IMSATT, one of the repeated requests from teachers was whether the teachers would have the capability to change the ordering of lessons. They were assured that they did have this capability. While technically it was possible for teachers to do this for their groups (or even to set up a unique curriculum for any individual in the group), it was neither as simple or as quick as was implied. In addition, in order for a teacher to create such unique curriculum, that teacher would need to take time both to explore <u>all</u> the available software and to decide in what sequence he/or she could prescribe it for their learners.

It was possible for learners to take individual lessons; however, if this feature was activated, tracking of that learner was no longer possible until he or she returned to the system-determined paths. Teachers did not choose to work with individual lesson selection for the aforementioned reasons. Most often teachers also came to appreciate the greatest strength of using an integrated learning system i.e., the linking of lessons into modules, incorporate modules into courses, and coordinate courses into curricula. Many curricula were previously constructed by CDC or previous users of the CYBIS courseware, including a Basic Skills curriculum, a GED curriculum, and an English as a second language curriculum.

Drexel University spent many hours reviewing the courseware and found that the recently updated Basic Skills curricula was quite well developed. Thus, the providers decided to utilize this curricula, but insisted on the opportunity of making available other lessons, when they might apply to the individual needs of various students. Items learners and teachers wanted access to which were not available in the curricula included the following: games, a variety of extra grammar and business-related lessons, and computer literacy materials.



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# INTEGRATING THE SOFTWARE WITH AN INSTRUCTIONAL PROGRAM

The diversity of the eight participating literacy organizations fostered the development of several different models for blending the courseware with the teacher's curriculum. The degree of integration varied. There was a direct relationship between the degree of integration and learner usage of the software. The following six models are presented in rank order, beginning with the optimum and moving to the less effective approaches, based on the degree to which learners from each program utilized the on-line system.

# 1. Integrated and Segregated Class/On-line Class

In order to ensure that learners were on the system at least weekly, this format required the learners to attend basic skills classes for six hours a week. A second teacher was added for the PLP who provided two extra sessions: one on Tuesday evenings for three hours at the community learning center to learn how to use the on-line system and work on lessons (for the purposes of discussion it will be called PLP Session I), and a second session on Thursday evenings which was instructed "on-line" for three hours (PLP Session II). Thus, the teacher in this case provided an additional six hours of support to the learners, three hours of which was done in a "distance learning" framework.

PLP Session I classes were mostly devoted to explaining the system and the options for usage. When necessary, the teacher logged on to the system to demonstrate new options or to resolve problems via the one computer at the site which had a modem. When time permitted the teacher would provide basic skills instruction on math or reading issues that were posed by the learners.

The teacher logged on to the system from her home for PLP Session II sessions. The teacher asked each learner to spend one and a half hours on math and then one and a half hours on reading lessons during the three hour session. Since the computers were being used at this site to help the learners build their math skills particularly, learners were asked to work on the math lessons first. The teacher would send each learner a note and ask each learner to begin his/her lessons. Lesson selection was done via the system's on-line pre-testing and placement functions only, neither the teacher nor learner directed her lesson selection. The teacher noted that by offering class via the computer those learners who could not get child care



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were still able to attend and interact with their teacher and fellow students via the on-line communication functions. The teacher also noticed that learners who missed the in-person class tended to log-on for extra time during the week to make up for the absence.

The teacher would often monitor the lessons from her computer and when necessary offer guidance through the on-line communications functions. While monitoring was often done, the learners had to initiate the process by asking for help from the instructor. This policy was adopted to ensure learner privacy and to give learners control over the learning process. If the learners did not ask for help, the instructor would send general guidance and encouragement to the learners while they were on line through the "Term talk" and "P-note" functions of the system.

In this model there was no direct relationship between the basic skills instructor and the PLP instructor, so the computer lessons did not necessarily correspond to with the classroom instruction. However, the agency felt that the learners needed extra support in the development of their math skills, thus the heavy emphasis on computer based math lessons. The learners did not just access the on-line math lessons during PLP Session II these learners, more than any others in the pilot, worked on the math lessons when they logged on throughout the week.

It is also important to note that the site which used this model had a former learner/graduate of their GED program serve as the computer instructor.

# 2. Integrated Class/On-line Support

In this format the learners were required to attend one, three hour class a week at their community learning site. The teacher had the role of offering basic skills instruction support as well as showing the learners how to use the on-line system. To accomplish this, the teacher, through both informal and formal assessment instruments, became familiar with the learners' basic skills levels and worked with the learners to set skill-specific learning goals. The teacher spent several weeks demonstrating how to use the system via the one computer on the site which was linked to the on-line system. Learners were initially given homework assignments which built their facility on the on-line system. After three weeks the teacher and learner together identified the lessons which would be the greatest help in



addressing the learning goals of the individual. Thereafter, the class time would be used only to discuss computer problems and to introduce the P-note and other communication functions. The bulk of the class time eventually, after six to eight weeks, was spent on basic skills instruction on an individual basis.

In addition to integrating the usage of the system into class, the teacher regularly signed onto the system in the evening sending encouragement to learners and answering their questions.

# 3. Integrated Class/Weekly In-person Discussion/On-line Support

This approach relied most heavily on the basic skills instructor to integrate the on-line system into her regular instruction. In this setting, learners came to a three hour class at the community learning center twice a week. Since the learners at this site were learning English as a second language, the learners worked on the computer lessons as the computer directed them via the built in pre-testing functions. The system offered instructions in Spanish, so that learners were able to navigate the system rather easily. Nevertheless, the basic skills instructor typically spent one third of class discussing on-line problems and progress.

The instructor's efforts were supplemented by a fellow teacher who met each Saturday morning with the PLP participants to provide further encouragement and support to the learners. At these meetings the teacher would review the lessons with the learners and offer feedback. He also introduced the learners to the many communication functions of the systems. The instructor used the one computer at their site which was connected to the on-line system (via modem) to help learners resolve system problems. Further, the teacher helped the participants explore options for working with their children on the system's on-line educational games and lessons. In addition to these weekend meetings, this supplemental teacher was regularly on the system in the evenings to offer additional encouragement and guidance to those students who asked the instructor to help them with a lesson.



Although these models are presented in rank order, the level of success of all three approaches was very high, with insignificant variance. The key attributes of these three models are as follows:

- High degree of feedback to learners;
- High degree of teacher interaction with the learners on the system; and
- Consistency of goals between basic skills instruction and on-line lessons.

#### 4. Classroom Instruction/Learner Motivation

In this setting, the provider did not vary or link their classroom instruction with the on-line system; however, the instructional approach in this setting included basic skills instruction on networked computers at the site. Thus, the learners in these sites had a relatively high level of familiarity with computer assisted instruction. The teachers simply showed the learners how to use the system in the first couple of weeks of class and then relied on the learners to access the system without much encouragement or tracking.

# 5. Basic Introduction and Volunteer Support

Learners in this community learning site were given ten hours of introductory instruction on how to use the computer system. Each introductory session was two and a half hours in length; sessions were held twice a week for two weeks. After this introduction the teacher did not include any discussion of the computers in the class time and no effort was made to match learning goals with on-line instructional opportunities. Despite the absence of classroom focus, the provider relied on a VISTA volunteer to be in regular contact with the learners via the telephone and on-line to encourage usage of the system. The VISTA volunteer regularly attended the basic skills class, talking briefly with learners after the class about their progress on the system.

# 6. Volunteer Tutoring

Although the model was developed to enhance the impact of classroom-based instructional programs, one agency decided to integrate the computers into its volunteer tutoring program. To get the program under way the site coordinator, a full-time paid adult educator, delivered the computers to the homes of each adult



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learner. The delivery day was also used as an opportunity to provide one-on-one instruction on how to use the system. One to three hours of introductory instruction was offered, depending on the learner's needs. The site coordinator asked the learner's volunteer tutor to accompany him for the introductory session so that the tutor would understand the system and attempt to integrate it into the learner's tutoring program. Thereafter, the site coordinator did not provide any further in-person instruction unless the learner requested it. The site coordinator did, however, offer encouragement to use the system via the telephone and electronically.



#### LEARNER'S USE OF COURSEWARE

Learners tended to work primarily in the basic and GED preparation modules for math, grammar and reading. An ESL program with Spanish speakers accounted for the extensive use of the ESL for Spanish modules. The writing, social studies, and science GED preparation modules were accessed less frequently.

Course	Total Hours
Basic Grammar	352.6
ESL for Spanish	213
GED Math	201
Basic Reading	153.2
Basic Math	77.4
GED Reading	75
GED Writing	44
GED Social Studies	27.7
GED Science	<u> 16.5</u>

The following snapshots describe the variance in usage among the agencies:

- Group 1 90% of the learners regularly accessed the system. Each learner logged on to lessons more than eighteen nours. One learner worked more than 45 hours to build her skills.
- Group 2 83.3% of the learners continued to use the system through the end of the project. Eleven learners have been on the system more than 32 times, many logging more than 40 hours in lessons.
- Group 3 80% of the learners continued to use the system through the end of the project. One learner has logged on to instructional sessions for 8.6 hours, the rest of the learners have been on less frequently.



- Group 4 64% of the learners continued to use the system through the end of the project. In this project, family members were shown how to use the system in addition to the enrolled learners. Many of the family members used the system sporadically but without any clear pattern or consistency. Those accessing the system logged up to 23 hours in lessons; the average usage was approximately six hours.
- Group 5 50% of the learners continued to use the system through the end of the project and 90% had accessed regularly through April. Learners logged on to lessons for up to 37 hours; the average was 17 hours.
- Group 6 43% continued to use the system through the end of the project. This is a one-to-one tutoring setting; thus, institutional support and follow-up tended to be minimal. However, one learner accessed instruction quite frequently, logging 136 hours and more than 78 sign-ons.
- Group 7 25% continued to use the system through the end of the project and another 41% were on for three months. This program also suffered from teacher turnover during the eighth week. As a result, the learner log on was very low; the average use was approximately one and a half hours.
- Group 8 16.7% continued to use the system through the end of the project.

  Teacher turnover has resulted in very little learner participation.

The average usage was lower than anticipated. Learners were asked to use the computers at least six hours a week. While some used the computer six hours in one sitting, most did not achieve a six hour a week average.

When the Community Women's Education Project (CWEP) students were given their self assessment forms, they began to give each other feedback. Specifically, one student noted how another student's vocabulary skills had improved since she began working on the computer. The instructor at CWEP pointed to significant improvements in one student's spelling skills. She remarked that the computer helped the learner focus and practice until she knew spelling rules. Another learner has become a self-appointed assistant computer instructor, which the instructor indicated was a result of elevated self-esteem and a zest for using technology to learn not extant prior to the Power Learning Project.



At Lutheran Settlement House Women's Program (LSH) several of the learners indicated that the computer helped them build math skills. They also remarked that the computer was a tremendous resource, especially when they missed class. They often made up the lessons at home with the computer.

Learners at Temple and Drexel Universities commented that they saw fast improvement in their grammar and vocabulary skills due to the computers and they regularly gave younger siblings and their children access to the system to build their grammar and math skills.

ASPIRA's group of women faced the greatest challenges, as it took several months to overcome start-up obstacles. However, after being on the computer for just three weeks, improvement was noticeable and usage was extraordinarily high. ASPIRA is currently pursuing further funding to continue the project since a number of their learners completed all or major portions of the Spanish ESL curriculum.

Increased self esteem among the Power Learning Project participants was also noted by each instructor. However, programs that coupled the computers with one-on-one tutoring models or chose beginning learners did not see the same degree of impact.

Each instructor noted a clear and regular increase in learners' comfort with technology. However, the impact was at a lower level in the one-to-one model and with the early learners.

Retention for the classroom programs was 75 to 100%. The instructors attribute this to the excitement generated and support offered by the computers. The classroom instructors indicated that their typical retention rate would be between 50 to 75% without the computers. Retention was very high with the early learners as they struggled through the system. In the one-to-one tutoring setting, there was no significant impact on retention among the Power Learning Project participants.

The Center for Literacy compared the number of hours that Power Learning Project participants attended class versus regular students and found a 57% increase in classroom attendance among Power Learning Project participants who attended class an average of 43.16 hours between January and April. Those in the control group attended class 24.5 hours in the same time period.



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The Community Women's Education Project found that their 75% retention rate was high for a program that did not provide stipends for students. The retention rate was particularly impressive because their Power Learning Project class met in the evenings, after most of the students had worked all day. Learners shared that they stayed because they enjoyed working on the computers at home and because of the support and instruction they received in class from each other and the instructor.

Programs where there was staff turnover were unable to maintain student participation. This was manifested in a very clear student drop-off after the turnover took place. New teachers were not able to be trained on the system orientation quickly enough to pick up where the previous teacher left off.

All of the teachers indicated that they were very interested in the networking and on-line communication capabilities of the system through which they could send mail either to another individual or post it to a bulletin board. Toward the end of the projects learners began to utilize this as a way of writing to lear s in other programs. This offered new opportunities for communication and letter-writing and an effective means through which learners developed their writing skills. A review of the E-mail records indicates that 100% the learners who worked on the system for 10 hours or more used the E-mail or bulletin board functions of the system.

Unfortunately, as noted in the previous section connectivity and telephone problems had an extremely disruptive effect on the possibility of extensive writing. Several spin-offs of this project (including a project taking place with residents of homeless shelters supported by the National Center on Adult Literacy) will pursue this intriguing dimension of networked software.

# Learner Responses to the Courseware

Learner and teacher log entries indicated that learners appreciated the opportunity to choose alternatives to their "prescribed" curriculum. They also valued being pretested, assigned lessons and post-tested. If successful, learners advanced to the next lesson or module in the curriculum. If unsuccessful, they received remedial lessons until they achieved mastery on their tests.



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Based on conversations and journal entries, it was concluded that sixty percent of the teachers were very comfortable with mastery learning as a general philosophy of education. The others felt it was not sufficiently broad for every learning situation but was worthwhile in specific situations to augment class instruction. Some felt it did not involve learners in evaluation, synthesis, problem-solving, decision-making, critical thinking, or other high order thinking skills. These concerns rested on their belief that adult learning must be contextual, based in community experience. Nevertheless, they agreed that in certain domains drill and practice programmed learning would be useful to at least some of the learners. At the conclusion of the pilot phase the teachers unanimously agreed that the software was effective.

As previously noted, there were many technological stumbling blocks to accessing the CYBIS system. It should be stressed that these difficulties do not detract from the completeness or usefulness of the courseware itself, which both learners and teachers felt enhanced their potential for learning. Learners who were able to access the system and stay on were able to progress through the material and, as is indicated in the Impact Evaluation make significant improvements in their skill levels.

# Based on the Power Learning Project experience the following steps are recommended when purchasing on-line software packages:

- After meeting with a software sales representative be sure that the next meeting includes a member of the technical or software development unit of the company. Confirm all system attributes with the technicians;
- Hands-on access to the instruction and record-keeping capabilities of the software must be provided in the early stages of negotiations. For on-line systems, real-time log-on and perusal of the system must be provided. Log-on and perusal must be conducted on the exact hardware on which the system will operate. If more than one type of hardware is going to be used, the system must be tested on each hardware type. Log-on and graphic capabilities are very sensitive to hardware specifications.
- Purchase contracts must clearly outline the ongoing technical support offered by the software company. For on-line systems, down-times must be specified and re-routing mechanisms must be spelled out in case certain phone lines, computers or switches fail.
- The phone carrier must be included in all negotiations for on-line systems, and written documents must specify the carrier's responsibilities for transmission.
- Documentation for the program and workbooks must be available for all participants.
- Pre and post testing elements of the software should be reviewed for congruence with the instructional objectives of the overall program and with any noncomputer-based assessments which the students are expected to complete.
- Payments for on-line services must be staggered throughout the pilot to protect
  the literacy agencies and ensure continuous access to the service. The City of
  Philadelphia's contract with IMSATT is attached. The negotiation of the contract
  was extremely difficult, yet invaluable resulting in the charification of many
  vague details.



- The phone carrier and the software company must have common and reasonable expectations regarding the speed in which the telecommunications systems operate.
- Log-on protocols for each hardware set-up must be developed and tested before the program is implemented to assure reasonably rapid response time and that the log on is reliable more than 80% of the time..
- Because of the technical complexities of distance learning collaborative projects should bring participating providers on-line one at a time to assure that the system is fully operational for all learners as they are brought into the project.
- Ensure learner privacy through the use of passwords and guarantee that learners
  have control over a teacher's ability to monitor their work while they are within
  lessons.
- High learner usage can be fostered by fully integrating the software into the classroom curriculum and by providing learners regular feedback about their CAI progress.
- If providers rely on computer based assessments to place learners in the curricula, the learners must be given a great deal of support and encouragement to complete the lengthy assessments.
- The integration of E-mail and immediate access to on-line feedback while learners where in lessons builds motivation and higher levels of learner usage.



# SECTION 3: TEACHER TRAINING AND SUPPORT



#### **TEACHER TRAINING**

It was clear from the inception of the Power Learning Project that teacher training was an indispensable aspect of the Project. It involved eight literacy agencies, their teachers and learners, and computers widely dispersed in people's homes rather than a centrally placed learning laboratory. This project required a unique training model due to the following variables:

- Agencies with different educational philosophies wanted to use CYBIS in different ways and the Commission made a commitment to facilitate this diversity;
- Agency staff, not merely a lab manager, would be allowed and encouraged to gain responsibility, control, and comprehension of the system;
- Teachers required control of the software curriculum so that when necessary they could make individual adjustments.

These factors, promoted the development of an alternative training strategy. The intention was to encourage each teacher to become expert on the system by offering two-hour monthly trainings (all the time the instructors could spare) which provided information on various aspects of the CYBIS learning system.

Drexel's staff received a two-day overview training in how to operate the CYBIS system from Control Data Corporation on November 19-20, 1992. (See Training Outline in Attachment 3) and were given copies of the rough draft for the CYBIS Courseware Colivery Guide and a Quick Start Guide to give to each literacy agency. Drexel's staff then took the training guide and evaluated what would be the most relevant to the teachers for each monthly training. The training followed the general pattern in the Basic Learning Center Manager's Course.

At the beginning of each meeting, each teacher would update the group about the progress of the participants from his/her agency and any unique approaches he/she was trying. Teachers would also share stories about specific learners who showed particular aptitude or those having unusual problems. The second agenda item would focus on the progress toward solving ongoing system problems; typically, updates on discussions with either Bell Atlantic, IMSATT, Control Data, or the telephone and software companies. The third agenda item focused on



developing skills, understanding the system and helping teachers build their capacity to accomplish what they wanted. The final item typically centered on concerns about assessment.

The following details the topics covered in the teacher trainings. Immediately following the narrative, outlines for each training session are provided. All handouts are included as attachments to this report.

Training 1, October 27, 1992, Drexel University: Teachers received an initial group training at Drexel. A computer-based presentation explained the logging-on process. This presentation also displayed and explained sample screens from the courseware.

It was decided that since the computers would not be delivered until late November, further trainings would wait until sites received the computers. Without hands-on practice to complement the theory, retention was unlikely. Teachers made appointments (most of the agencies sent at least two representatives to the training) to come to Drexel between November 25 and December 3 for individual two-hour trainings.

Training 2, Nov. 25-Dec. 3, 1992, Drexel University: Participants worked on the computer one-on-one with Drexel staff to log on. (See Attachment 3, Example of Logon.) Each teacher received two system names, one so that they could register as teacher/administrators (who had a wide variety of options in the CYBIS system, including moving around among lessons, seeing and printing learner records, and altering curriculum structure) and a second so that they could register as learners and "take" courses in the same way a learner would. They took several lessons to see how the courseware worked. They were encouraged to explore the available teacher options, which included the ability to look at the on-line catalog of courseware available on CYBIS (not just the ABE courseware). They were asked to try to log on as soon as possible so that the instruction they received would be fresh to them, to note any questions or problems they had, to call Drexel for needed support over the telephone, and to return for each monthly training.

Training 3, January 29, 1993, Mayor's Commission on Literacy: (See Attachment 3, The Real Launch of IMSATT). This was a discussion and demons. In training, rather than a hands-on training. Logon procedures were reviewed. Each learner needed to have a specially prepared disk to use the system. Drexel staff prepared the first versions of the disks and gave them to the teachers. However, because the logon would frequently change, it was viewed as impractical to convey every disk back to Drexel, so the teachers needed training in how to create different logons. Example sheets and step-by-step directions were given so that teachers could understand and use the Access menu to change and update their learners' logons. After this training, all of the teachers were successful when it proved necessary to modify these logons. In fact, they were even able to train learners to do it, or talk them through it over the phone.

The ability to look at student records and the ability to communicate using personal notes was also explained and discussed. Handouts supplemented the directions within the CYBIS Training Manual.

Training 4, Feb. 18, 1993, Mayor's Commission on Literacy: A discussion and demonstration training review the newest logon and discussed other problems. The group was given handouts and discussed how to view learner results, individually and as a group. Responses from teachers indicated that though they were able to see some records of both their students and their group, they were not able to find other kinds of data (such as how much time each learner spent in each unit, or how far along in each unit they were). This information was conveyed to Control Data, which was able to create an appropriate structure for looking at these records.

How to communicate with users currently on line (called "Term-talk" in the CYBIS terminology), and communications procedures using the "drexcdsi" file, an on-line bulletin board where learners and teachers could utilize the note-writing and communications features of the program, were explained (See Attachment 3, Teacher's Meeting, Feb. 18, 1993). The CYBIS P-note (personal notes, a kind of electronic mail) feature was discussed and recommended.

A demonstration of how to access the supplementary courseware (educational games) was made.

A regular rotation of teachers was established so that there would be a teacher available to help on-line learners each night (See Attachment 2, <u>Instructors' On-Call Schedule.)</u>

Training 5, March 18, 1993, Mayor's Commission on Literacy: Communication, including Term-talk, Term-ask, Monitoring, and P-notes were reviewed. Monitoring allows teachers (from their computer) to observe the actions of the learners (at their computer). Techniques for exempting learners from a course were taught. (See Atachment 3, <a href="Exempting Learners">Exempting Learners</a>). The procedures needed to look at the data teachers were interested in had been developed by Control Data since the previous meeting and these were taught.

Different options available to instructors, such as enrolling new learners, changing learners' routing through the courseware, and sending messages to all members of a group, were explained and handouts were distributed.

Training 6, April 21, 1993, Mayor's Commission on Literacy: A discussion session reviewing many of the above techniques and introducing the newest logon procedure. By this point, most teachers were able to either accomplish what they needed by themselves, and were able to analyze errors which stemmed from learner, teacher, telephone, or CYBIS, or knew how to describe it and get it accomplished through Drexel, IMSATT, or Control Data.

# **TEACHER TRAINING MEETING #1**

#### **AGENDA**

- I. What is courseware?
- II. What is telecommunications?
- III. What is IMSATT?
- IV. Potential advantages and drawbacks to an on-line educational system
- V. The Basics of CYBIS
  - A. Accessing the system: logging on
  - B. Available courseware
    - 1. The content of CYBIS: Curriculum, course, module, lesson
    - 2. The structure of CYBIS: Assessment, Training, Post-assessment, Remediation or advancement
  - C. Electronic mail and bulletin boards
- VI. HyperCard Presentation on Using CYBIS
- VII. Set up rotation to make sure there is one teacher on each night learners might log on
- VIII. Set up appointments for individual trainings



#### TEACHER TRAINING MEETING #2 (INDIVIDUAL TRAINING)

- I. Review Previous Training
- II. Give out teacher logons
- III. Log on and explore teacher menus
  - A. How to access the courseware catalog
  - B. Electronic mail
  - C. Viewing learner records
- IV. Log on and explore learner menus
  - A. Courseware
    - 1. Integrated Learning System sequenced courseware
    - 2. Additional courseware: Games and unsequenced educational software
  - B. Learner Email
- $\ensuremath{V}.$  Take an assessment and explore a lesson
- VI. Give out suggested teacher and learner logs
- VII. Explain support system.
- VIII. Questions and answers.



#### **TEACHER TRAINING MEETING #3**

- I. Introductions and overall comments on how the project is going
  - A. How are the machines working?
  - B. How is the courseware working for your group?
- II. Logon problems
  - A. Adjusting the logon for teachers who have call waiting.
  - B. Teacher questions and comments on the logon process
- III. Viewing learners' results:
  - A. Viewing data from the entire group
  - B. Viewing data from individuals
  - C. Viewing the work of learners currently on-line.
- IV. Communications using the bulletin board
  - A. Notes to and with learners
  - B. Teacher notes
- V. Questions and Answers



#### **TEACHER TRAINING MEETING #4**

- I. Review and discuss positive and negative experiences
- II. Review and discuss any alterations in the logon, system, or record-keeping which have occurred since the inception of the project, including implementation of additional courseware.
- III. Review examining learner results
- IV. On-Line Communication
  - A. Term-Talk
  - B. Term-Ask
  - C. Term-Comment
  - D. Bulletin Board
  - E. Student Monitoring
- IV. Review of logs and record-keeping
- V. Questions and Answers



#### **TEACHER TRAINING MEETING #5**

- I. Review and discuss positive and negative experiences
- II. Review and discuss any alterations in the logon, system, or record-keeping which have occurred since the inception of the project, including implementation of additional courseware.
- III. Review examining learner results
- IV. On-Line Communication
  - A. Term-Talk
  - B. Term-Ask
  - C. Term-Comment
  - D. Bulletin Board
  - E. Student Monitoring
- IV. Review of logs and record-keeping
- V. Questions and Answers



#### **CONCLUSIONS ABOUT TEACHER TRAINING**

The teachers involved into the project had different levels of expertise with computers, courseware, and telecommunications. The teachers from Community Women's Education Project and Lutheran Settlement House Women's Program had worked extensively with all three components. The teacher from Drexel and one of the teachers from Temple (both of whom left before the completion of the project) had a more than introductory, but not in-depth, experience with all three components. The teachers from the Indochinese American Council and ASPIRA Inc. of Southeastern Pennsylvania, and the assistant teacher at Center for Literacy, were familiar with computers but not courseware or telecommunications. Both coordinators from the YMCA were familiar with computers, but the skill levels of volunteers who actually worked with the learners were minimal.

The first lessons involved simply logging on to the system and creating a password. At the beginning of the project, all functions, such as adding, dropping, exempting students from courses, or communicating with Control Data, were carried out by Drexel staff. After training, the teachers could accomplish these functions as well as communicate with learners, send and receive messages to the system administrators from Control Data, monitor students as they worked in real time, and access student records.

In general, the teachers who had the opportunity to log on had little trouble with the procedures as written. However, several pointed out that there was a twelve-step procedure necessary to log on, and indicated that this was likely to be difficult for many of the learners. (See section on Logon Concerns.) This was the first time the logon was revised and was an example of how valuable it is to have feedback from the teachers to best support the learners. If the issues or problems raised by teacher or learner feedback seemed likely to affect many of the learners, resolutions to these problems were then incorporated into trainings. Questions about logons were a part of every monthly training since they changed so often.

The monthly training regimen was a successful and valuable way to train the teachers. It encouraged them to be in control of and understand the CYBIS system, to actively question and explore the options available in the program, and to logically try to deduce answers to questions rather than rely on an "omniscient" lab



administrator. This training enabled these teachers to be confident, alert consumers of technology rather than passive recipients.

This was a valuable holistic learning experience for the teachers. However, learners might have completed more lessons with less interference from the system with a highly trained lab administrator supervising from a single site. Agencies which replicate this project should evaluate whether the long-term benefits received from increasing teacher awareness of technology are as valuable as greater usage during an initial six-month, rather than two-week, training period.

Control Data offered excellent support in providing these materials, and went "the extra mile" by providing the <u>Quick Start Guide</u> on disk, so that appropriate adaptations could be made. Unfortunately, as is often the case with computer manuals, the <u>Delivery Guide</u> was difficult to follow, contained outdated (and sometimes incorrect) information, or did not clearly indicate what actions to follow. While Drexel staff or project teachers were sometimes able to use the manual, more often they needed to refer questions directly to Control Data. Project teachers called Drexel staff for help, and if necessary, Drexel staff would call Control Data, Bell Atlantic, or IMSATT staff for a higher level of support.

PLP was empowering to teachers and helped convey expertise and promote familiarity with computer and networking concepts to the teachers. It also provided teachers time to use the product in a real situation, making their learning relevant to their needs. Nevertheless, it did mean that teachers were unable to utilize certain powerful features of the system until quite late into the process, simply because training time (approximately two hours per month) was limited. While this meant that training took place incrementally over a six month period, it also meant that teachers became invested in the project and took a great deal of personal responsibility (and pride) in mastering aspects of CYBIS.

Nevertheless, in replicating the project, it is recommended that more time for training should be allocated before and during the project. Such training would certainly encourage more understanding and use of the many aspects of the CYBIS system sooner.



Power Learning Project, Final Report

## Based on the Power Learning Project experience the following steps are recommended when training teachers to use on-line CAI:

- Teacher training should incorporate hands-on work as much as possible.
- In introducing the project, teachers with some previous familiarity with computers and software should be tapped to help design and deliver the training as much as possible.
- Teachers should have between one and two months to log on and experience the system themselves before incorporating it into their classes so they will know what is available and be able to plan how to best integrate it into their instructional program.
- Teacher training should be implemented over time to allow the teachers to build their proficiency with tasks before moving on. Early training sessions should occur at one central site, later sessions should include some remote activities.
- The entire software documentation manuals should be provided for teachers at the fi 'training so that they are encouraged to explore the system on their own.
- Teacher training must be offered for the length of the project to ensure that teacher, and learner, feedback are constantly used to improve the implementation of the system.
- Trainers should be able to make themselves available in-person or on-line during the evening or at times when teachers will need help, at least during the beginning phases of the project.



## SECTION 4: THIRD-PARTY IMPACT EVALUATION

Prepared by Jay Sivin-Kachala, Interactive Educational System Design, Inc.



#### **Evaluation Planning**

In this chapter, the plan for the Impact Analysis Evaluation is described in detail. The plan was developed by IESD, the project's independent Impact Analysis evaluator, to answer the following questions:

Does home-based CAI, coupled with classroom learning, result in achievement in reading, writing, and mathematics skills?

Are specific patterns of home-based CAI usage related to specific areas of achievement.

Does home-based CAI, coupled with classroom learning, result in increased student motivation and more positive attitudes toward learning.

Does home-based CAI, coupled with classroom learning, result in increased student self-esteem.

#### Plan in Brief

The evaluation combined pre-test/post-test comparisons of standardized test performance with analysis of more subjective, teacher and student assessments of achievement and the value of home-based CAI.<sup>2</sup>

For the pre-test/post-test comparisons, the sign test, a nonparametric statistical test, was used because of the small student groups in each adult education class. For purposes of statistical analysis, students were grouped in two ways: (1) by adult education program, and (2) by initial reading ability, as determined by performance on the standardized reading pre-test. Achievement data were compared with CYBIS usage data provided by Control Data Systems to determine if any achievement effects were likely attributable to home-based CAI.

Finally, an informal comparison of retention rate data (the experimental group compared to a control group or the "typical" rate) was planned.

#### Preliminary Data Collection

Before beginning the evaluation (December 1992), IESD met with representatives of the Mayor's Commission on Literacy and the participating adult literacy education programs. The purposes of this meeting were:

- To learn as much as possible about the differences among the programs involved in the project.
- To present evaluation issues and options, and to gain the input of the participants.

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<sup>&</sup>lt;sup>2</sup> The evaluation plan originally called for comparison between experimental and control groups from the participating adult education programs. However, suitable control groups were unavailable.

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As a follow-up to this meeting, representatives of the eight participating adult literacy education programs were asked to provide detailed information about their programs in written form. Their responses were analyzed by IESD.

**Testing Instruments** 

To assess achievement in reading and mathematics, the *Test of Adult Basic Education (TABE) Survey Form, Locator Test and Level E, M, or D* (CTB MacMillan McGraw-Hill) was administered as a pre- and post-test. To assess achievement in writing, essay tests were administered as a pre- and post-test, using topics provided by the GED Testing Service. Each test consisted of two essays, which were scored by an independent agency trained in the holistic scoring technique used by the GED Testing Service.

In addition to these formal assessment tools, IESD constructed survey instruments to capture teacher and student perceptions of achievement. Teachers were asked to identify specific concepts and skills that were covered in class and to rate student achievement in each, using a 5-point Likert scale. Teachers were also asked to identify positive and negative changes in student performance that they attributed to use of computers at home. Students were asked to assign themselves improvement ratings for reading, writing, and mathematics, using a 3-point Likert scale, and to indicate what they thought were the causes of their improvement (e g., adult education classes, using the computer at home, other factors). Students were also asked to identify their personal learning goals, to assign themselves improvement ratings for these goals (using the same 3-point Likert scale), and to indicate what they thought were the causes of their improvement.

Retention rate data (available for two adult education programs) served as a measure of student motivation to build literacy skills.

In addition, the Survey of Study Habits and Attitudes, Form C (The Psychological Corporation) was administered as a pre- and post-test to assess changes in attitudes toward learning. This multiple-item paper-pencil test assesses two areas of study habits (delay avoidance and work methods) and two areas of study attitudes (teacher approval and education acceptance).

Finally, to assess changes in student self-esteem, the *Culture-Free Self-Esteem Inventories for Children and Adults, Form AD* (Pro-Ed) was administered as a pre- and post-test. This multiple-item paper-pencil test assesses four areas of self-esteem: general, social (relating to others), personal (inner feelings), and defensiveness.

Statistical Analysis

Because group sizes smaller than 12 were anticipated (due to students dropping out or not completing pre- and post-testing), the sign test, a nonparametric statistical test, was used. The sign test gets its name from the

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<sup>&</sup>lt;sup>3</sup> Adapted from a method described in D. D'Amico-Samuels, *Perspectives on Assessment from the New York City Adult Literacy Initiative: A Critical Issues Paper* (New York: Literacy Assistance Center, November 1991).

fact that it is based upon the direction of differences between two measures rather than quantitative measures of data. It is particularly useful for research in which quantitative measurement is impossible or infeasible, but it is possible to determine, for each pair of observations, which is the "greater" (in some sense).

The sign test is applicable to the case of two related samples when the experimenter wishes to establish that two conditions are different. The only assumption underlying this test is that the variable under consideration has a continuous distribution. The test does not make any assumptions about the form of the distribution of differences nor does it assume that all subjects are drawn from the same population (thus the name *nonparametric*). The different pairs may be from different populations with respect to age, sex, intelligence, etc. The only requirement is that within each pair, the experimenter has achieved matching with respect to the relevant variables. One way to accomplish this is to use each subject as its own control.

The null hypothesis (no change) tested by the sign test is that P(+) = P(-) = .5; ties are not taken into account. The power efficiency of this test is about 95% for N = 6, but it declines as the size of the sample increases to an eventual (asymptotic) efficiency of 63%. The sign test serves as a useful substitute for the t-test when working with small sample sizes.<sup>4</sup>

#### Additional Data Collection

Control Data Systems provided IESD with summary usage and curriculum mastery data for all work completed by students on the home computers. The data were sorted by adult education program and by initial reading ability group. Control Data also provided IESD with summary teacher usage data. These data were used to determine whether achievement effects were attributable to use of the CYBIS system.

Drexel University, in its capacity as the project's process evaluator, provided data and observations about the teachers involved in the project.

#### Analysis of Teacher and Student Pota

Finally, the data collected from the teacher and student survey instruments were analyzed to identify specific areas of achievement related to the instructional objectives of each adult literacy education program and to the personal learning goals of students. As part of this analysis, we compared for selected students the data collected from the teachers and students to usage and mastery data for all work completed by students on the home computers. We looked for patterns of achievement related to the use of the home computers.

<sup>&</sup>lt;sup>4</sup> Adapted from Sidney Siegel and N. John Castellan, Jr., Nonparametric Statistics For The Behavioral Sciences, Second Edition (New York: McGraw-Hill Book Company, 1988).

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#### Observations and Outcomes

Findings and analysis related to achievement in reading, writing, mathematics, study habits and attitudes, and self-esteem are based on data from four adult education programs<sup>5</sup>:

LSH CFL Community Women's Education Project YMCA

#### Achievement Gains

Achievement gains were analyzed by adult education program and by initial (pre-test) reading level.

Achievement by adult education program. Table 1 indicates that the only significant difference demonstrated by students at LSH was for the TABE Math subtest. There is a clear direction towards improvement of scores, as indicated by the predominant number of + signs (p = .05). The average gain was 1.25 grade levels. Analysis for the GED Essay Writing test could not be conducted because only one essay was completed during post-testing. (GED's requirements are that scoring be based on an average of two essay samples from each student.)

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The data provided by the other adult education programs were insufficient to complete the analysis.

Table 1. Achievement at Lutheran Settlement House

	TABE	S-EST		S-HB	rs
R	M		SA	зн	so
+	+	-		1-	
+	+	-	+	+	+
+	+	-	+	0	+
-	+	+	+	-	+
-	+	-	1-	-	
-	+	-	+	-	-
+	+	+	+	+	+
	-	-	-	-	-
-	+	+	+	-	-
-	-	+	-	+	+
10	10	10	1(		

.4

N: Number of pairs - number of ties (shown as zeros)

.4

.05

X: Number of fewer signs

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N X

p

Table 2 suggests an improvement among students at CWEP for GED Essay Writing (p = .03) and for Self-Esteem. Although the p value for Self-Esteem is 0.06 (marginally over the level of significance 0.05), it may be an indication that for a larger N this pattern of improvement will hold. Testing for the TABE Math was not completed.

.4

.5

.6



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Table 2. Achievement at Community Women's Education Project

	TABE	GED	S-EST		S-HB	rs
R	M	Essay		SA	SH	SO
+		+	+	+	+	
+		+	+	-	+	-
-		+	+	]-	+	]-
+		+	+	0	-	-
+		0	0	+	+	+
+		+		+	-	+

N 5 6 6 2 2 2 X 0 0 1 .5 .3 .3 .11 .03 .06 р

N: Number of pairs - number of ties (shown as zeros)

X: Number of fewer signs

Table 3 indicates no significant changes for students at the CFL program. Note that for the GED Essay Writing and Study Habits tests, this may be due to the low number of students who completed testing.

Table 3. Achievement at Center for Literacy

	TABE	GED	S-EST		S-HB	rs
R	M	Fssay		SA	SH	SO
+	+	+	•	•	+	•
+	-	+	-	-	-	-
-	-		-	+	+	+
+	-		+			
+_	-		-			
-	+					
+	•					
+						i

N: Number of pairs - number of ties (shown as zeros)

X: Number of fewer signs

\* = N is too low to yield a p value

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According to Table 4, TABE Reading shows significant positive change for students at the YMCA program (p = .02). The average gain was 0.8 grade levels. Students in this program did not demonstrate a significant change for any other test.

Table 4. Achievement at YMCA

T	ABE	GEC	S-EST		S-HBT	
R	M	Essay		SA	SH	SO
+	+	0	+	-	+	+
+	+	-	+	+	+	+
+	+	+		+	+	+
+	-	+		+	+	+
+	-		-	+	+	+
0	+		+	-	+	]-
+	-		+	-	]	-
+	+		+	-	-	
+	+		1-	-	-	-
+	+			-	-	
9 0 .02	10 3 .2	3	9 4 .5	10 5 .6	10 4 .4	6 5 .6

N: Number of pairs - number of ties (shown as zeros)

X: Number of fewer signs

N X

D

\* = N is too low to yield a p value

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Achievement by initial reading level. Table 5 indicates that the only significant difference demonstrated by students with an initial reading level of less than grade 5.0 was for TABE Reading (p = .001).

Table 5. Achievement for Students with Initial Reading Level < Grade 5.0

	TABE	GED	S-EST		S-HB7	S
R	M	Essay		SA	SH	SO
+			-	]-	+	-
+	+					
-		+	] -		•	
+	-		-	+	+	+
+	-	+	+			
-						
+	+			<u> </u>		
+	- 1		-			
+	+	0	+	<u> </u>	+	-
+	+		+	+	+	+
+	+	7-	-	+	+	+
+	-			+	+	+
+	-	+	]-	+	+	+
0	+	+	].	<u> </u>	+	+
<u></u>	+		+	<u> </u>		-
+	+		+	]-	-	-
+	+		+	<u> </u>	-	-
+	+			<u> </u>	-	
+	+		+	+	+	+

N	18	18	5	15	14	14	14
Χ	2	7	1	7	6	5	7
р	.001	.2	.2	.5	.4	.2	.6

N: Number of pairs - number of ties (shown as zeros)

X: Number of fewer signs

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Table 6 indicates no significant changes for students with an initial reading level between grade 5.0 and grade 8.0. Note that for GED Essay Writing, this may be due to the low number of students who completed testing.

Table 6. Achievement for Students with Grade  $5.0 \le \text{Reading Level} \le 8.0$ 

	TABE	GED	S-EST		S-HB1	
R	M	Essay		SA	SH	SC
+		+				
+				-	+	
-		+	+		+	
+		+	0	+	+	+
+	+		-		-	-
+	+		-	+	+	+
+	+		] -	+	0	+
-	+		+	+		+
-	-		-	-	-	-
-	+		+	+		
-	-		+		+	+

10 10 Ν 3 8 10 11 5 5 4 2 0 4 X 5 .6 6. .4 .5 .3 .6

N: Number of pairs - number of ties (shown as zeros)

X: Number of fewer signs

\* = N is too low to yield a p value

Table 7 indicates no significant changes for students with an initial reading level greater than grade 8.0. This may be due to the low sample sizes.

Table 8. Achievement for Students with Reading Level > Grade 8.0

	TABE	GED	S-EST		S-HB1	S
R	M	Essay		SA	SH	SO
+			+	+		]-
+		+	+	0	-	
+		0	+	+	+	+
-	+	+	-	•	-	]
	+		1-	+	-	]-

5 5 5 2 5 2 N 1 2 1 X 2 0 0 .2 .2 .3 .5 .5 p

N: Number of pairs - number of ties (shown as zeros)

X: Number of fewer signs

\* = N is too low to yield a p value

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<u>Summary of findings</u>. Significant positive effects were specific to particular adult education programs and initial reading levels. These effects are summarized as follows:

TABE Reading

**YMCA** 

Initial Reading Level < Grade 5

TABE Math

LSH

GED Essay Writing

Community Women's Education Project

Self-Esteem

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Community Women's Education Project

(marginally significant)

No significant effects with respect to study habits or attitudes were found for any group.

Comparison to CYBIS Usage Data

The finding of significant positive effects does not indicate whether CYBIS home-based CAI was a factor in these effects. To explore the relationship between CYBIS usage and achievement effects, CYBIS usage and mastery data were analyzed by adult education program and by initial reading level.

CYBIS usage and mastery by adult education program. Table 8 summarizes usage and mastery data for the four adult education programs included in the evaluation.



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ERIC Full test Provided by ERIC

Student Settlement Site House amil, norma			300			•			
Settlement		CO   CO   CO   CO   CO   CO   CO   CO	Courses Courses	19   Est. Cor	19 Courses Est. Comp.: 150 Hrs	15 Est. Co	15 Courses Est. Comp.: 222 Hrs	44 Est. C	44 Courses Comp.: 494 Hrs
Settlement	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	=	Courses	Hours in	Courses	Hours in Course	Courses Mastered	Total Hours	Total Courses Mastered
heran Settlement use I, norma	1	Course	Masicica	2000	na indicator				
, погта									
	2	13.2	1.00	28.9	0.54	0.0	0.00	42.1	1.54
colon, lucy	2		0.00	24.4	1.13	10.4	2.00	×4.5	3.13
dimension tackle	2	9.5	0.07	5.7	0.17	0.5	0.00	15.7	0.24
oray demarisol 2	2	19.1	3.44	23.9	1.25	8.0	0.13	43.8	4.82
obneso elsie	3	.2	0.00	2.6	0.17	0.3	0.00	3.1	0.17
mointain charve	3	7.3	1.73	18.6	1.75	3.5	0.00	29.4	3.48
McMarkor Hillon		16.1	0.45	48.6	2.39	54.3	6.07	119.0	8.91
Alkei, milaii		× ×	0.68	12.9	3.00	0.1	0.00	21.2	3.68
swisher, joyce	*	127	000	125	00.6	9.1	0.75	0.09	9.25
s, cheryi	*		0.07	67	1 00 1	0.5	0.00	6:01	1.07
watson, agnes		7,24	414	330.10	30.40	73.0	8.45	380.0	36.29
FOTAL.		0.07	***/	10,72	2017	Sign of the second seco		18.0	
Average Hours		1.86		77.77		<b>4:</b> , <b>1</b>			
								-	
enter for Literacy					87.4		000	177	000
blakeney, mattie 4	-	1.1	0.00	5.3	0.00	0.0	0.00	50.4	0.00
burris, chester	_	6.0	0.00	0.0	0.00	7:,	0.13	0.0	0.00
isher, linda	_	0.0	0.00	1.2	0.00		0.00	C	0.00
Oster lois		0.0	0.00	0.2	0.00	0.0	0.00	2.0	0.00
4		3.1	0.07	1.7	0.25	2.7	0.07	C:/	0.39
	-	00	000	3.7	00.0	2.4	0.00	6.1	0.00
			000	3.3	00.0	0.1	0.00	3.5	0.00
		100	000		0.00	1.6	0.00	2.8	0.00
perkins, lorer to		5.2	0.07	16.6	0.25	14.6	0.20	36.4	.52
orage Hours	-	.65		0.50		1.83		2.98	
Avelage Hobbs									

C'5.

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ر: c

Table 8. CYBIS Home-Based CAI Usage and Mastery Sorted by Adult Education Program (continued)

CWEP										
bieławski, carol	œ	3	22.5	4.29	1.00	0.00	0.0	0.00	23.5	4.29
burnett, vanessa	8	2	34.5	1.24	1.7	1.40	14.6		56.2	4.71
byrd, michele	8	3	3.0	0.00	0.00	0.00	8.0		3.8	0.00
enoch, venus	8	2	1.7	0.13	0.00	0.00	10.2		6.11	2.61
freeman, cheryl	8	2	3.2	0.00	0.00	0.00	0.2		3.4	0.00
legare, shawn	8	3	33.3	5.00	0.2	0.00	0.0		33.5	5.00
ward, suzanne	8	2	27.7	1.89	9.0	0.00	10.5		38.8	2.96
TOTAL			125.9	12.55	8.9	1.4	36.3		171.1	19.57
Average Hours			17.99		1.27		5.19		24.45	
YMCA										
crawley, frank	За		0.0	0.00	0.0	0.00	0.0	00.0	0.0	0.00
gore, howard	3a		0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00
hines, linda	3a	1	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00
mason, jerome	3a		0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00
mcintosh, juliette	3a	_	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00
parker, eddie	3a	1	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00
collins, thomas	39	1	0.0	0.00	0.0	0.00	0.1	0.00	0.1	0.00
mesorley, john	36	1	84.7	6.00	16.1	6.25	131.9	11.00	232.7	23.25
orsini, joan	36	-	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00
thaller, hanna	36	-	0.4	0.07	0.0	0.00	9.0	0.00	1.0	0.07
TOTAL			85.1	6.07	16.1	6.25	132.6	11.00	233.8	23.32
Average Hours			8.51		1.61		13.26		25.8	

10

LSH students had the greatest average usage of the CYBIS system (38.0 hours) and the greatest average total courses mastered (3.6). They worked on Mathematics courses more than any other curriculum area (60 percent of the time) and mastered more Mathematics courses than any other subject (56 percent of the courses mastered). Sixty percent of the students (6 of 10) used Mathematics courseware for more than 18 hours. Using the sign test, TABE Math showed a significant positive effect for these six students (p = .016). All six students had score increases on the TABE Math from pre- to post-test. Their average gain was 2.3 grade levels. These data suggest that use of the CYBIS system in combination with classroom instruction may have been a factor in the class's achievement in Mathematics.

The students at CWEP averaged 24.45 hours of system usage and mastered an average of 2.8 courses per student. They worked on Language Arts and Writing more than any other curriculum area (75 percent of the time) and mastered more Language Arts and Writing courses than any other subject (64 percent of the courses mastered). More than half of the students (4 of 7) used Language Arts and Writing courseware for more than 20 hours. Three of these four students showed an increase on GED Essay Writing from pre- to post-test; the fourth student showed no change<sup>6</sup>. These data suggest that use of the CYBIS system in combination with classroom instruction may have been a factor in the class's achievement in Writing.

The vast majority of students at YMCA never used the CYBIS system (80 percent). Because most students never used the CAI, it is highly unlikely that it was a major factor in the class's achievement in Reading.

CYBIS usage and mastery by initial reading level. Table 9 summarizes usage and mastery data for three initial reading level groups.

<sup>&</sup>lt;sup>6</sup> These results were not statistically significant, probably due to the small group size. IESD Impact Analysis Addendum January 31, 1994



Table 9. CYBIS Home-Based CAI Usage and Mastery Sorted by Initial Reading Level (TABE)

		Lang. Ar	ts & Writing	Main	Main Courses	Keadin	Keading Courses		Grand Total
		Est. Con	Courses	19 Est. Co	19 Courses Est. Comp.: 150 Hrs	15 Est. Co	15 Courses Est. Comp.: 222 Hrs	44 Est. C	44 Courses Est. Comp.: 494 Hrs
Student	Site Level	Hours in Course	Courses Mastered	Hours in Course	Courses Mastered	Hours in Course	Courses Mastered	Total Hours	Total Courses Mastered
Below 5th Grade Reading Level									
burris, chester	4	6.0	0.00	0.0	0.00	7.7	0.13	9.8	0.13
collins, thomas	36 1	0.0	0.00	0.0	0.00	0.1	0.00	0.1	0.00
crawley, frank	3a 1	0.0	00.0	0.0	00.0	0.0	0.00	0.0	0.00
fisher, linda	4	0.0	0.00	1.2	0.00	0.1	0.00	1.3	0.00
foster, lois	4	0.0	00.0	0.2	0.00	0.0	0.00	0.2	0.00
gore, howard	3a 1	0.0	00.0	0.0	0.00	0.0	0.00	0.0	0.00
hines. linda	3a 1	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00
iohnson, marv	4	3.1	0.07	1.7	0.25	2.7	0.07	7.5	0.39
mason, ierome	3a 1	0.0	00'0	0.0	0.00	0.0	0.00	0.0	0.00
meintosh, juliette	3a l	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00
mcsorlev, john	36 1	84.7	6.00	16.1	6.25	131.9	11.00	232.7	23.25
mercher, lillian	2 1	16.1	0.45	48.6	2.39	54.3	6.07	119.0	8.91
nesmith, carrie	4	0.0	0.00	3.7	0.00	2.4	0.00	6.1	0.00
orsini, joan	36 1	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00
parker, eddie	3a 1	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00
perez, william	4	0.1	0.00	3.3	0.00	0.1	0.00	3.5	0.00
perkins, lorenzo	4	0.0	0.00	1.2	0.00	1.6	0.00	2.8	0.00
thaller, hanna	36	0.4	0.07	0.0	0.00	0.0	0.00	0.1	0.07
TOTAL		106.4	6.59	81.3	8.89	201.5	17.2/	389.2	37.73
Ayoraga Hanre		7		4.28		c. = -		20.48	

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Table 9. CYBIS Home-Based CAI Usage and Mastery Sorted by Initial Reading Level (TABE) (continued)

5th to 8th Grade										
Reading Level					000		Š			
amil, norma	7	7	13.2	1.00	28.9	0.54	0.0	0.00	47.1	1.54
burnett, vanessa	8	2	34.5	1.24	7.1	1.40	14.6	2.07	56.2	4.71
colon, lucy	2	2	0.0	00.0	24.4	1.13	10.4	2.00	34.8	3.13
dumpson, jackie	2	2	9.5	0.07	5.7	0.17	0.5	0.00	15.7	0.24
enoch, venus	8	2	1.7	0.13	0.0	0.00	10.2	2.48	11.9	2.61
freeman, cheryl	8	2	3.2	0.00	0.0	0.00	0.2	0.00	3.4	0.00
gray, demarisol	2	2	19.1	3.44	23.9	1.25	8.0	0.13	43.8	4.82
swisher, lovce	2	2	8.2	0.68	12.9	3.00	0.1	0.00	21.2	3.68
torres, cheryl	2	2	1.3	00.0	57.1	00.6	1.6	0.25	0.09	9.25
watson, agnes	2	2	3.7	0.07	6.7	1.00	0.5	0.00	10.9	1.07
ward suzanne	×	2	27.7	1.89	9.0	0.00	10.5	1.07	38.8	2.96
TOTAL			122.1	8.52	167.3	17.49	49.4	8.0	338.8	34.01
Average Hours			11.1		15.2		4.49		30.8	
Above 8th Grade										
Reading Level		i				***************************************		×	×××	×
bielawski, carol	8	3	22.5	4.29	1.0	0.00	0.0	0.00	23.5	4.29
byrd, michele	8	3	3.0	0.00	0.0	0.00	0.8	0.00	3.8	0.00
johnson, elsie	2	~	0.2	0.00	2.6	0.17	0.3	0.00	3.1	0.17
legare, shawn	8	3	33.3	5.00	0.2	0.00	0.0	0.00	33.5	5.00
mcintyre, cheryl	2	3	7.3	1.73	18.6	1.75	3.5	0.00	29.4	3.48
TOTAL			66.3	11.02	22.4	1.92	4.6	0.00	93.3	12.94
Average Hours			13.26		4.48		.92		18.7	

0-1

The vast majority of students with an initial reading level of less than Grade 5 used the CYBIS system for less than one hour or not at all (83 percent). Thus, it is highly unlikely that home-based CAI was a major factor in this group's achievement in Reading.

<u>Summary</u>. CYBIS usage and mastery data suggest that the availability of home-based CAI in combination with classroom instruction may have been an important factor in Mathematics achievement for students at the LSH and in Writing achievement for students at CWEP. It is unlikely that the availability of home-based CAI in combination with classroom instruction was a major factor in Reading achievement for students at YMCA or for students with a reading level below Grade 5.

#### Explaining Different Results at Different Programs

What might explain the positive results in Mathematics at the LSH and in Writing for students at CWEP? IESD analysts considered the following:

- · The amount of computer training received by students
- Teacher use of the CYBIS system
- Teacher expertise with online technology
- Integration of home-based CAI and classroom instruction

In addition to these conditions, CYBIS usage data confirm that the system is much better suited to stude with reading levels between Grades 5 and 8 than to students with reading levels below Grade 5. The experience of YMCA and CFL was that most students below grade 5 will not use CYBIS because they do not have the prerequisite reading ability to benefit from the courseware. Another integrated learning system with courseware specifically designed for beginning readers (e.g., with human speech) would be better suited for these students.

<u>Computer training received by students</u>. Each adult education program reported the number of hours of training on the computer that students received after initial training. These are summarized in Table 10 below.

Table 10. Computer Training Received by Students
After Initial Training

Adult Education Program	Hours of Training
Lutheran Settlement House	10
Center for Literacy	5
Community Women's Education Project	17-20
YMCA	1-2

These data suggest that the amount of student computer training may have been a factor in the positive results at LSH and CWEP.

<u>Teacher use of the CYBIS system</u>. Control Data Systems tracked the number of hours teachers used CYBIS to explore courseware. These data are summarized in Table 11.

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Table 11. Hours Spent by Teachers Exploring CYBIS Courseware

Adult Education Program	Lang. Arts & Writing	Math	Reading	Total
Lutheran Settlement House	0.3	2.9	3.0	6.2
Center for Literacy	1.8	4.1	3.1	9.0
Community Women's Education Project	2.8	0.0	0.0	2.8
YMCA	0.0	0.0	0.1	0.1

Teachers at CFL spent the most time of any program exploring Mathematics and Reading courseware. However, no significant achievement effects were found at CFL. The one additional hour spent by teachers at CWEP compared to teachers at CFL does not seem sufficient to explain why achievement in Writing occurred at CWEP but not at CFL. In general, the amount of time spent by teachers reviewing CYBIS courseware does not appear to be a factor in the different results at the different adult education programs.

<u>Teacher expertise with online technology</u>. According to Drexel University process evaluators, teachers at LSH and CWEP had prior expertise with online technology in instructional settings. The teachers at CFL and YMCA had no such prior expertise. This may have been a major factor in the different results at the various programs.

Integration of home-based CAI and classroom instruction. Drexel University process evaluators report that at LSH and CWEP, a teacher was also the site manager of the CYBIS system. There was an ongoing attempt to integrate courseware assignments with classroom instruction. At CFL a teacher was not the site manager of CYBIS; there was little or no integration of CAI assignments and classroom instruction. At YMCA, students worked with volunteer tutors rather than professional teachers; there was little or no integration of CAI assignments and tutorial instruction. The degree of integration between classroom instruction and courseware assignment is likely to have been a major factor in the success at LSH and CWEP.

<u>Summary</u>. Important contributing factors in the achievement gains at LSH and CWEP are likely to include the amount of computer training received by students, the teachers' prior expertise with online technology, and their efforts to integrate home-based CAI and classroom instruction.

Impacts at LSH and CWEP from the Teachers' Viewpoint Standardized testing is not the only means of determining impacts of an instructional treatment. Teachers at LSH and CWEP were asked for their own, subjective assessments.



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LSH. Regarding Mathematics and the use of computers at home, one teacher commented:

Using the computer at home enhanced student self confidence, therefore, enabling the student to feel confidence about his/her studies as well....When a learner is given a chance to accomplish something that is scary to them they feel good about tackling other challenges as well -- even those they have failed at previously.

In addition to the online courseware, students at LSH also had access to word processing software. One teacher noted:

Using the computer to do word processing gave the students the ability to write and edit more efficiently. Therefore, it helped them to concentrate on content.....When a tool eases the writing process, the learner can then concentrate on what they want to say and not on spelling errors and the like. It helped them to edit too.

When asked about overall benefits of having students use computers at home, one teacher responded:

First, it helped them to get familiar with the world of technology -- a frightening thing for most students. Second, it introduced learners to a new method of learning -- one that was never failed by them before.

Teachers at LSH reported some initial technical problems with the computers which were eventually solved. No negative effects of students using computers were noted.

<u>CWEP</u>. Regarding Writing and the use of computers at home, one teacher commented:

They began to pay attention to sentence structure and spelling rules....The computer lessons encouraged good grammar and the spelling section repeated the rules, allowing the students to become familiar with the reasoning behind what they needed to learn.

With respect to Reading, one leacher noted:

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They began to concentrate on reading for content...The students had to concentrate very hard to decipher what was expected of them in the various lessons. They needed good reading comprehension to grasp directions.

When asked about overall benefits of having students use computers at home, one teacher responded:

Each student was able to do the lessons at a time convenient to them. Also, they each felt special to have an important piece of the chnology in their homes, and this feeling made them want to learn.



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Teachers at CWEP also reported some technical problems with the computers, especially with the keyboards. No negative effects of students using computers were noted.

#### General Observations and Conclusions

Given the limitations of a study in natural educational settings and with small sample sizes, there is evidence to suggest that home-based CAI delivered online in combination with classroom instruction can have a positive effect on academic achievement. The following conditions appear to contribute to the success of this treatment.

- Students must receive sufficient computer training to work through the management system and courseware without difficulty.
- Teachers must have sufficient prior experience with online educational technology. Technology-experienced teachers will be prepared solve any problems that might arise. They will also convey to their students an attitude of positive expectations about using the computers.
- Teachers must integrate courseware selection with classroom instruction. To accomplish this, teachers must be trained in technology integration.

There is limited statistical evidence (from CWEP) that the instructional treatment can have a positive effect on self-esteem. Teacher logs and interviews with students at all the programs suggest that self-esteem was improved as a result of using computers at home. At LSH, it is possible that for some students, aspects of self-esteem specifically related to learning may have increased without affecting general self-esteem. (Note that the self-esteem scale used for analysis measures general self-esteem and not self-esteem specifically related to learning and school.) At CFL and YMCA, usage of the CYBIS was so low that the question of its impact on self-esteem is moot.

Furthermore, the retention data from LSH suggests that the treatment can have a positive effect on stuent motivation. It seems likely that these effects are the result of a combination computer and classroom interaction.

No statistical evidence was found that home-based computer use combined with classroom instruction has an impact on study habits and attitudes. In planning this evaluation, it was an open question as to whether the habit of using computers at home for educational purposes would have a positive impact on study attitudes and habits. Perhaps study skills must become a focus of classroom instruction for study habits and attitudes to improve. It may also be that there must be a teacher presence during the home study experience. The CYBIS system's online e-mail system has great potential for developing such a teacher presence. This would a require a structure for teacher-student e-mail communication about assignments and study plans. The e-mail communication



would have to be a regular part of both the teachers' and students' responsibilities.

All in all, there is sufficient data to support continuing this instructional treatment in educational settings where the conditions identified above can be met.

#### Problems with Student Populations and Data Collection

The evaluation plan called for data collection from eight adult education programs:

LSH
CFL
CWEP
YMCA
Indo-Chinese American Council (ICAC)
Aspira, Inc.
Drexel University
Temple University

All students were supposed to have an initial reading level between Grade 5 and Grade 8. However, three of the adult education programs included students with reading levels well below Grade 5 (CFL, YMCA, and Aspira<sup>7</sup>). And one program included mostly students with reading levels above Grade 8 (Drexel). Further complicating the original intents of the project and the evaluation, two of the programs involved classes of English as a Second Language (ESL) students.

Nonetheless, the testing instruments were determined to be suitable for the broad range of students to be included in the project.

Completion of testing varied from program to program. The table below summarizes the completion data for each program.

Initial reading levels for ICAC students were never submitted. However, these students are reported to have had initial reading levels below Grade 5, as well.
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#### Students Completing Evaluation Instruments

Program	TABE	GED Essay	Self- Esteem	Study Habits	Teacher Ass'mut	Student Ass'mnt
LSH	Pre-test: 12 Post-test: 10	Pre-test: 10 Post-test: 9ª	Pre-test: 10 Post-test: 10	Pre-test: 10 Post-test: 10	Pre-test: 11 Post-test: 0	Pre-test: 11 Post-test: 0
CFL.	Fre-test: 13 Post-test: 8 <sup>b</sup>	Pre-test: 12 <sup>c</sup> Post-test: 5 <sup>d</sup>	Pre-test: 9 Post-test: 5 No test: 1	Pre-test: 8 Post-test: 3 No test: 2	Pre-test: 11 Post-test: 5	Pre-test: 4 Post-test: 7
CWEP	Pre-test: 9 <sup>e</sup> Post-test: 7 <sup>e</sup>	Pre-test: 9 Post-test: 6	Pre-test: 5 Post-test: 5 No test: 4	Pre-test: 9 Post-test: 6	Pre-test: 9 Post-test: 0	Pre-test: 7 Post-test: 0
YMCA	Pre-test: 10 Post-test: 10	Pre-test: 6 <sup>t</sup> Post-test: 4	Pre-test: 5 Post-test: 5	Pre-test: 9 Post-test: 6	Pre-test: 9 Post-test: 0	Pre-test: 7 Post-test: 0
ICAC	No test: 9	Pre-test: 99 Post-test: 0	Pre-test: 9 Post-test: 9	No test: 9	Pre-test: 9 Post-test: 0	Pre-test: 4 Post-test: 0
Aspira	Pre-test: 8 Post-test: 0 No test: 1	Pre-test: 8 Post-test: 0 No test: 1	Pre-test: 9 Post-test: 0	No test: 9	Pre-test: 8 Post-test: 0 No test: 1	No test: 9
Drexel	Pre-test: 7 Post-test: 0 No test: 3	Pre-test: 4 <sup>h</sup> Post-test: 0 No test: 6	Pre-test: 6 Post-test: 0 No test: 4	Pre-test: 8 No test: 2	Pre-test: 10 Post-test: 0	No test: 10
Temple	Pre-test: 13 Post-test: 0	Pre-test: 4 <sup>t</sup> Post-test: 0	Pre-test: 12 Post-test: 0	Pre-test: 7 Post-test: 0	Pre-test: 13 Post-test: 0	Pre-test: 6 Post-test: 0

<sup>&</sup>lt;sup>a</sup> All 9 students completed only one of two required essays. Completion of two essays is required for purposes of evaluation.

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The low completion rate for Aspira and ICAC may be partially explained by the fact that these were ESL classes. Other achievement instruments may be better suited for the ESL student population.



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b All 8 students completed the Reading sub-test. Only 7 students completed the Mathematics sub-test.

<sup>&</sup>lt;sup>C</sup> 1 of the 12 students completed only one of two required essays. Completion of two essays is required for purposes of evaluation.

d 3 of the 5 students completed only one of two required essays. Completion of two essays is required for purposes of evaluation.

<sup>&</sup>lt;sup>e</sup> All students completed only the Reading sub-test.

f 2 of the 4 students completed only one of two required essays. Completion of two essays is required for purposes of evaluation.

<sup>9 2</sup> of the 9 students completed only one of two required essays. Completion of two essays is required for purposes of evaluation.

h 1 of the 4 students completed only one of two required essays. Completion of two essays is required for purposes of evaluation.

<sup>&</sup>lt;sup>1</sup> 2 of the 4 students completed only one of two required essays. Completion of two essays is required for purposes of evaluation.

The low completion rate for the Teacher Assessment instrument may be due to the length of the instrument. (A simpler, shorter assessment instrument had been considered and rejected by the Philadelphia Mayor's Commission on Literacy.)

For some programs, incomplete testing was probably due to teacher resistance to standardized testing or to testing in general. In some instances, incomplete testing may be due to student absences during critical testing periods.



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# ATTACHMENT 1: Post-Project Teacher Interviews



Interviewee: Terry Martell	Date of Interview: 6/9/93			
Have you encouraged your learners to keep a log?	Yes O No O N/A     Make Log Comments			
Have you kept a log?	O Yes O No O Sometimes on page 2			
How many students did you start out with? 12	How many students are now in the program? 10			
How many students benefitted from the program?	10			
What presented difficulties for your learners?	Which one was the worst?			
<ul> <li>☒ Hardware</li> <li>☒ Phone Problems (static, call waiting, etc.)</li> <li>☒ Telecommunications Software</li> <li>☒ Educational Software</li> <li>☒ Management System Problems</li> <li>☒ Log-on Process</li> <li>☒ Macintosh Interface</li> <li>☐ IBM Interface</li> <li>☐ Support from Teacher</li> <li>☐ Support from MCOL</li> <li>☐ Motivation</li> <li>☐ Household Distractions</li> <li>☒ Pre/Post Project Testing Procedures</li> </ul>	O Hardware O Phone Problems (static, call waiting, etc.) O Telecommunications Software O Educational Software O Management System Problems Log-on Process O Macintosh Interface O IBM Interface O Support from Teacher O Support from MCOL O Motivation O Household Distractions O Pre/Post Project Testing Procedures			
What presented difficulties for you?				
<ul> <li>☑ Phone Problems (static, call waiting, etc.)</li> <li>☑ Telecommunications Software</li> <li>☑ Ed. Software (technically, does it work?)</li> <li>☑ IBM Inter</li> </ul>	Interface			
What presented the worst difficulty for you?				
O Phone Problems (static, call waiting, etc.) O Telecommunications Software O Ed. Software (technically, does it work?) O IBM Inter	Interface O Lack of Time/Money face O Lack of a computer at home com Organization			
How did you choose your participants?				
☐ Years in the Program ☐ Perceived Motivation ☐ Random ☐ Grade level ☐ Personal Acquaintence ☐ Previous Computer Experience ☐ Eligible for DPA ☒ N/A				
Would you do this project again?    Were your expectations of the project met?    Yes    No				
What would you do differently?				
The testing was rediculous; spend more time for student training; spend more time on curricular review (would have looked at curriculum more thoroughly with more time.) Would have preferred students at a higher grade level because of software readability. On an administrative level, there should have been more time built in for teacher training before working with learners. As trainers, Ben and Terry should have had more training themselves.				



	8
	Comment about learner logs:
	Students with low writing skills are not easily encouraged to write on a regular basis. When they do write, it is sometimes difficult to understand their meaning as well as their handwriting. I believe the learners did not understand the log sheet and/or exactly what the questions refered to, even after reviewing the sheet in class. I think they wanted to write, but had low skills so that terminology (such as "on-line") may have been unclear to them, even after reviewing these terms in class.
)	Comment about teacher logs:
	It is difficult to maintain the log on a regular basis due to lack of time, availability of the log itself (electronic version), and the fact that frequently problems occur as I'm in the middle of other things, they are resolved one way or another, and it would mean stopping everything just to open the log and record. Trying to remember at a later date is futile too, because it was difficult keeping track of what was a Drexel responsibility as opposed to an LSH responsibility.
	Why did your students drop?
	One student dropped because she had to take a second job. The other dropped because she moved out of the state.
	Why did your other students stay in?  Combination of them already being motivated students, holding a class in addition to their working at home was useful,
}	most of them were attending an additional class during the day organiztional support was there for them. They had a lot of contact with the organization aside from their class through extra-curricular activities.



In what ways did students benefit from the program?
---

By learning not to fear using technology. By exploring alternative ways of learning which they haven't already failed at one time in their life. By learning to trust their own instincts withthe technology and beginning to identify problems through the process of elimination. By taking responsibility for their own learning. By including family members in the learning process. By experiencing much more self-esteem and confidence in themselves.

#### In what ways did students not benefit from the program?

They weren't given enough time to explore their full potential with the project, 6 months wasn't enough time to accomplish much toward their education when learning technology had to take the forefront of this project.

#### Do your students feel the project is successful? Why?

Not exactly sure, even through all their frustrations and saying, "I keep doing the same lesson over and over again..." I'm not even sure they did "progress" toward their GED goals, but they may have. Even if they didn't, they know that they've learned other things which they feel are very important and which have upgraded their self-esteem and their confidence. I don't think they would have termed it as successful, but possibly they would have said "worthwhile", they would definitely had continued to participate longer if given the chance and eventually sugnificant progress would have been noticable.

#### Do you feel the project is successful? Why

The more ways available for students to learn, the better. If one way doesn't work try the other, and this is one alternative which will work for some students, possibly those students who have continually failed the "traditional way". In addition, I think it's another way for students to connect with family members (sharing computers in their homes). Students who are parents are already aggrevated and/or embarrassed because their kids are doing work in schools that they never had, including computers, and parents like to feel that they know a little about what their kids know about and work with in school.



Interviewee: Ben Burenstein	Date of Interview: 1/25/94
Have you encouraged your learners to keep a log?	O Yes O No O N/A Make Log Comments
Have you kept a log?	O Yes O No O Sometimes on page 2
How many students did you start out with?	How many students are now in the program? 0
How many students benefitted from the program?	0
What presented difficulties for your learners?	Which one was the worst?
☐ Hardware ☐ Phone Problems (static, call waiting, etc.) ☐ Telecommunications Software ☐ Educational Software ☐ Management System Problems ☐ Log-on Process ☐ Macintosh Interface ☐ IBM Interface ☐ Support from Teacher ☐ Support from MCOL ☐ Motivation ☐ Household Distractions ☐ Pre/Post Project Testing Procedures	O Hardware O Phone Problems (static, call waiting, etc.) O Telecommunications Software O Educational Software O Management System Problems O Log-on Process O Macintosh Interface O IBM Interface O Support from Teacher O Support from MCOL O Motivation O Household Distractions O Pre/Post Project Testing Procedures
☐ Phone Problems (static, call waiting, etc.) ☐ Log ☐ Telecommunications Software ☐ Mac ☐ Ed. Software (technically, does it work?) ☐ Content of Software ☐ Sup	/Post Project Testing Procedures
What presented the worst difficulty for you?	
O Hardware O Phone Problems (static, call waiting, etc.) Telecommunications Software O Ed. Software (technically, does it work?) O Content of Software O Sup	/Post Project Testing Procedure O Support from MCOL -on Process O Motivation cintosh Interface O Lack of Time/Money I Interface O Lack of a computer at home oport from Organization oport from Drexel
How did you choose your participants?	
☐ Years in the Program ☐ Perceived Motivation ☐ Personal Acquaintence ☐ Previous Computer Exp	☐ Random ☐ Grade level perience ☐ Eligible for DPA ☒ N/A
Would you do this project again?   Yes O No	Were your expectations of the project met? Yes O No
What would you do differently?	
More training up-front, more time setting up log-in pr staff meetings.	occedures on both systems, faster telecommunications, more frequen



Comment about learner logs:	
N/A	
Comment shout to show logg.	
Comment about teacher logs:  Very difficult to maintain due to lack of time.	
ery difficult to maintain due to lack of time.	
Why did your students drop?	
N/A	
Why did your other students stay in?	
N/A	



	Post-Power-Learning Project Teacher Interview	
In what ways did	id students benefit from the program?	
Yes a best success of the	id also dante mat han afit from the program?	
in what ways did	id students not benefit from the program?	
	•	
Do your students	nts feel the project is successful? Why?	
Do you feel the p	project is successful? Why	
r de la companya de l		

ERIC
Full Text Provided by ERIC

Interviewee: John Houghton	Date of Interview: 6/15/93
Have you encouraged your learners to keep a log?	Yes O No O N/A     Make Log Comments
Have you kept a log?	
How many students did you start out with? 11	How many students are now in the program? 11
How many students benefitted from the program?	12
What presented difficulties for your learners?	Which one was the worst?
<ul> <li>☒ Hardware</li> <li>☒ Phone Problems (static, call waiting, etc.)</li> <li>☐ Telecommunications Software</li> <li>☒ Educational Software</li> <li>☐ Management System Problems</li> <li>☒ Log-on Process</li> <li>☐ Macintosh Interface</li> <li>☐ IBM Interface</li> <li>☐ Support from Teacher</li> <li>☐ Support from MCOL</li> <li>☐ Motivation</li> <li>☒ Household Distractions</li> <li>☒ Pre/Post Project Testing Procedures</li> </ul>	O Hardware O Phone Problems (static, call waiting, etc.) O Telecommunications Software ● Educational Software O Management System Problems O Log-on Process O Macintosh Interface O IBM Interface O Support from Teacher O Support from MCOL O Motivation O Household Distractions O Pre/Post Project Testing Procedures
What presented difficulties for you?	
Phone Problems (static, call waiting, etc.) ☐ Log-on Pr☐ Telecommunications Software ☐ Macintos ☐ Ed. Software (technically, does it work?) ☐ IBM Interpretations	h Interface
What presented the worst difficulty for you?	
O Phone Problems (static, call waiting, etc.) O Log-on Pr O Telecommunications Software O Macintos O Ed. Software (technically, does it work?) O IBM Inte	h Interface O Lack of Time/Money rface O Lack of a computer at home rom Organization
How did you choose your participants?	
<ul> <li>✓ Years in the Program</li> <li>✓ Perceived Motivation</li> <li>✓ Previous Computer Experience</li> </ul>	Random Grade level The Eligible for DPA N/A
Would you do this project again?  Yes ONo	Were your expectations of the project met?  Yes O No
What would you do differently?	level of learner, set eside a time when everyone was on the
Became less motivated over time. Would select a different system, tie courseware into curriculum explicitly.	level of learner, set aside a time when everyone was on the



Post-Power-Learning Project Teacher Interotew	
Comment about learner logs:	
Hasn't really worked. Initially asked them to do it on their own, tried to do it as part of scheduled class, no whether they would actually write about computer or something else, turned into mishmash, didn't happer responses. Still ask them, nothing written about computer for 3 weeks or a month. Would include one line is on a computer. Also, weekly survey has replaced any writing. They are filling out the forms. To be honest, a confrontational situation. No instantaneous payoff, became more like ordering them to do something, or a move them. Tense atmosphere about computer, rest of class fine and dandy.	n. Erratic in a paragraph , it has become
Comment about teacher logs:	
Yes, been helpful, takes a lot of time (do it after every class or if anyone calls you, remember details of confirst did it on monthly basis, Donna said do it more often, pretty detailed events and observations. Change like Anita, more not force them to do it.	
Why did your students drop?	
We lost 2 and added 3. One was to the extended family and lack of time on phone, other was woman who dime.	didn't have
Why did your other students stay in?	
We're not forcing them to do much. Some still sense a commitment.	



	Fost-Fower-Learning Project Teacher Interotew
In what ways did stud	dents benefit from the program?
Most, educationally.	they liked it. I don't think it undermined their self esteem, even though they couldn't get on the or confidence. They didn't blame themselves. They blamed the technology. They do this with
In what ways did stu	dents not benefit from the program?
phone time after that the strongest users.	any. Emotionally, yes. Two of the 5 people, one was a great user in March, but couldn't reserve The other was on many hours, but her father had a stroke ans she hasn't been to class. They were Three others benefitted from it more than just coming to class. One definitely benefitted because he arch, picked up a temp job, so wasn't working.
Do your students feel	the project is successful? Why?
Just in the sense of ex really use it in a mea about typing someth	periencing a computer. If you asked them about the system, they would say no because they can't ningful way. They seem really proud they have it. A couple use ClarisWorks. One called today ing for a lawyer.
	6 10 Table
	ect is successful? Why
No, based on testing	the system, it was unsuccessful with our learners.



Interviewee: Sam Keo	Date of Interview: 11/1/93
Have you encouraged your learners to keep a log?	Yes O No O N/A     Make Log Comments
Have you kept a log?	Yes O No O Sometimes on page 2
How many students did you start out with? 15	How many students are now in the program? 1
How many students benefitted from the program?	9
What presented difficulties for your learners?	Which one was the worst?
☐ Hardware  ☐ Phone Problems (static, call waiting, etc.)  ☐ Telecommunications Software ☐ Educational Software ☐ Management System Problems ☐ Log-on Process ☐ Macintosh Interface ☐ IBM Interface ☐ Support from Teacher ☐ Support from MCOL ☐ Motivation ☐ Household Distractions ☐ Pre/Post Project Testing Procedures	O Hardware O Phone Problems (static, call waiting, etc.) O Telecommunications Software O Educational Software O Management System Problems O Log-on Process O Macintosh Interface O IBM Interface O Support from Teacher O Support from MCOL O Motivation O Household Distractions O Pre/Post Project Testing Procedures
What presented difficulties for you?	
<ul> <li>☑ Phone Problems (static, call waiting, etc.)</li> <li>☑ Log-on Pro</li> <li>☑ Telecommunications Software</li> <li>☑ Ed. Software (technically, does it work?)</li> <li>☑ IBM Inter</li> </ul>	Interface
What presented the worst difficulty for you?	
O Phone Problems (static, call waiting, etc.) O Log-on Pro O Telecommunications Software O Macintosh O Ed. Software (technically, does it work?) O IBM Inter	Interface O Lack of Time/Money face O Lack of a computer at home om Organization
How did you choose your participants?	
✓ Years in the Program ☐ Perceived Motivation ☐ Personal Acquaintence ☐ Previous Computer Experience	☐ Random ☐ Grade level  E
Would you do this project again?  Yes O No	Were your expectations of the project met? Yes O No
What would you do differently?	
Would use 1 student per computer. Would use Mac screen. Welfare sent 2 parents to study, if they fail, they don't get	Wouldn't test so much, too much pressure—fear of failure.
them more simple, there are a lot of symbols. More control of e-mail. Telephone line worked ok. People got frustrated go	over the lessons. Maybe next time we'll do better. Did use



1 USI-1 OWEI-Learning 1 Toject Teacher Interview
Comment about learner logs:
I collected most of the logs and gave them to Jean Spriggs. The same question. Did not ask what lesson student studied. Most students used picture english. 1 student (TESOL Test)
Comment about teacher logs:
i worked most off the lesson. Technical problems were ik. I could get through without any problem. I did nost of the lessons and would have liked it.
Why did your students drop?
Two completely dropped—One student's English was not good enough to log on. The second didn't like to work with the computer because the letters were too small — vision problems. Everyone else stayed in.
Why did your other students stay in?
Sometimes asked them to work, to try. They said it's very difficult, but they tried. Others never worked with a computer before or had one at home. Excited. ClarisWorks-they had copies to Type!. ONe said his son used it a lot. Another used it more than logging on. Was seperate, not really integrated. Used it as a supplement. If students wanted to learn something, I would have to provide it. Not the best—2 students with 1 computer. Prefer to have one per family.



In what ways did students benefit from the program?
Didn't have to come to school to study. Caould study anytime as long as they wanted. Don't know if they felt better
about themselves.
about themselves.
In what ways did students not benefit from the program?
None
Do your students feel the project is successful? Why?
Yes, one of our best students is still using the computer. The others are those who took the TESOL test at Temple. Most
students are parents, they still use Type! and games. More comfortable with other computer (IBM). Even I didn't have
Istudents are parents, they still use type: and games. More conflictable with other computer (1514). Event addit thave
experience using a Mac, but I learned from this project, especially typing.
Do you feel the project is successful? Why
For me, absolutely. form this project the best is that I learned how to use the computer. The English is very difficult,
most times I played games. I tought my son how to use the computer and to play games. I did it for volunteer. Really
imost times i piayeu games. I tought my soit now to use the computer and to piay games. I did it for volunteer, really
enjoyed it. We needed more time. Nest time, I'm sure I could be very successful. Now we know how to pick the students
who will be more successful and not just learn in the last 2 months how to really use the computer. There's not much
software for ESL. We should add more. Most students are still comming here.



_	
Interviewee: Scot Mentzer	Date of Interview: 1/26/94
Have you encouraged your learners to keep a log?	● Yes O No O N/A Make Log Comments
Have you kept a log?	O Yes O No Sometimes on page 2
How many students did you start out with? 6	How many students are now in the program?
How many students benefitted from the program?	5
What presented difficulties for your learners?	Which one was the worst?
☐ Hardware	O Hardware
➤ Phone Problems (static, call waiting, etc.)	O Phone Problems (static, call waiting, etc.)
	Telecommunications Software
☐ Educational Software	O Educational Software
■ Management System Problems ■ Log-on Process	O Management System Problems
☐ Macintosh Interface	U Log-on Process
☐ IBM Interface	O Macintosh Interface
☐ Support from Teacher	O IBM Interface
Support from MCOL	O Support from Teacher
Motivation	O Support from MCOL
☐ Household Distractions	O Motivation
☑ Pre/Post Project Testing Procedures	O Household Distractions
What presented difficulties for you?	O Pre/Post Project Testing Procedures
☐ Hardware ☐ Pre/Post Pr	roject Testing Procedures Support from MCOL
La rione rioblettis (static, call Walling, etc.) De or-on Dro	
lelecommunications Software Macintosh	Motivation
Led. Software (technically, does it work?) IRM Interf.	The same of this violity
Content of Software	om Organization   Lack of a computer at home
☐ Management System Problems ☐ Support fro	m Drexel
What presented the worst difficulty for you?	
O Hardware O Pre/Post Pr	oject Testing Procedure O Support from MCOL
Thomas robbeths (static, call waiting, etc.) O Log-on Proc	ess O Motivation
O Fed Service O Macintosh	Interface
O Ed. Software (technically, does it work?) O IBM Interfa	O lack of a computer at harms
O Managament C	in Organization
O Munagement System Problems O Support fro	m Drexel
How did you choose your participants?  Years in the Program Perceived Motivation	
Years in the Program Perceived Motivation	☐ Random
Personal Acquaintence Previous Computer Experience	☐ Eligible for DPA ☐ N/A
Would you do this project again?   Yes ONo	Were your expectations of the project met? Yes ONo
What would you do differently?	
Would have a class one day a week to discuss their problems. day a wk at the same time. Would choose a higher level learn	All learners would be required to be logged and
	er (ged). Would request more money for better
telecommunication software and equipment (modems).	The money for better



Post-Power-Learning Project Leacher Interview
Comment about learner logs:
Had trouble getting learners to do logs. Would have been better is the log was part of the on-line process, like an automatic screen would appear during the log-off process. Logs help me gain feedback from learners about project. But by the time I read them, it was too late to act upon the information.
Comment about teacher logs:
It was a nuicence because of time and then if you put it off, you would either forget what you wanted to remark about or would forget to do it altogether.
Why did your students drop?
Preceived lack of time to participate. Intimidation of the computer because of hardware and software malfunctions and telecommunication problems. Also, everyday responsibilities of life (moving, etc).
Why did your other students stay in?  Motivation to improve their skills. Status of having computer at home. Having assistance at home assistance at home.
Motivation to improve their skills. Status of having computer at home. Having assistance at home, someone willing to help log on and answer question about software and procedure.



In what ways did students benefit from the program?
Confidence level in using technology rose. Typing skills improved. Problem-solving skills improved-dealing with malfunctions. Learning to understand that they weren't at fault when malfunctions occurred. Some reading and writing benefits were evident.
In what ways did students not benefit from the program?
nothing.
motung.
Do your students feel the project is successful? Why?
Yes, because they were able to have computer at home, and they learned "something" and the ability to deal with using computers.
Do you feel the project is successful? Why
Yes, we learned a lot from the successes and the unsuccesses of each site and we learned to work together on a collaborationg project which was beneficial. In addition, we were updated in technology and hardware and software uses.



Interviewee: Meg Keeley	Date of Interview: 1/28/94
Have you encouraged your learners to keep a log?	Yes O No O N/A     Make Log Comments
Have you kept a log?	O Yes No O Sometimes on page 2
How many students did you start out with? 12	How many students are now in the program? [10]
How many students benefitted from the program?	10
What presented difficulties for your learners?	Which one was the worst?
<ul> <li>☒ Hardware</li> <li>☒ Phone Problems (static, call waiting, etc.)</li> <li>☒ Telecommunications Software</li> <li>☒ Educational Software</li> <li>☐ Management System Problems</li> <li>☒ Log-on Process</li> <li>☐ Macintosh Interface</li> <li>☐ IBM Interface</li> <li>☐ Support from Teacher</li> <li>☐ Support from MCOL</li> <li>☐ Motivation</li> <li>☒ Household Distractions</li> <li>☒ Pre/Post Project Testing Procedures</li> </ul>	O Hardware O Phone Problems (static, call waiting, etc.) O Telecommunications Software O Educational Software O Management System Problems O Log-on Process O Macintosh Interface O IBM Interface O Support from Teacher O Support from MCOL O Motivation O Household Distractions O Pre/Post Project Testing Procedures
What presented difficulties for you?	
☐ Phone Problems (static, call waiting, etc.) ☐ Log-on Pro☐ Telecommunications Software ☐ Macintosh☐ Ed. Software (technically, does it work?) ☐ IBM Inter	Interface
What presented the worst difficulty for you?	
O Phone Problems (static, call waiting, etc.) O Log-on Pro O Telecommunications Software O Macintosh O Ed. Software (technically, does it work?) O IBM Inter	Interface O Lack of Time/Money face O Lack of a computer at home om Organization
How did you choose your participants?	
☐ Years in the Program ☐ Perceived Motivation ☐ Personal Acquaintence ☐ Previous Computer Experience	☐ Random
Would you do this project again? Yes O No	Were your expectations of the project met?  Yes O No
What would you do differently?	
Hardware would be more reliable. Software would be bug well as assessment of learners was too long and not valid.	free. Implementation of program wasn't well thought out, as Assessment should have been built into the software.



Comment about learner logs:
There should have been focus points at least once a month with focus questions so that if done in class we would have
gotten more valuable feedback. Possibly a pre and post survey with focus sessions in between.
·
·
Comment about teacher logs:
N/A
Why did your students drop?
One student lacked commitment and had life interferences. The other was not enthusiastic and had personal problems
with residence.
Why did your other students stay in?
Not because it was easy! They recognized the importance of learning to use the computer. Their self-esteem was being
lenhanced by being a part of the project and by overcoming problems related to the use of the computer. They were able to
see progress taking place on a regular basis with their own learning. They were having fun. The group as a whole
worked together and built camaraderie. Having pen pals on the pnote system.



In what ways did students benefit from the program?	
Increased their learning and self-esteem, built a technology foundation, learned how to work as a group and to enhance problem solving skills.	
In what ways did students not benefit from the program?	_
Pre/post testing was useless. Studnet's frustration in working through hardware/software malfunctions. Software was glorified textbook content. While they were learning to use computers they weren't learning to use the newest in multimedia and interactive technology. A lot of the computer skills learned will not really be transferrable to daily computer use, too specific to the project. Some students were so frustrated with the hardware/software malfunctions that they resorted to just playing games.	
Do your students feel the project is successful? Why?	_
Yes, they all wanted to keep the computers and continue with the project. But their idea of what it meant to be successful was not geared toward their own goals. They thought the project was successful because they knew they were logging in more than the other groups and that they were doing what the teachers and project managers were asking of them, usin the computer a lot.	n
Do you feel the project is successful? Why	
We knowingly used substandard equipment and software because we wanted to get computers into people's homes and to was the only way it was affordable. In that sense it was as successful as it could be since we couldn't really know in advance what malfunctions would occur. But the rise in student self-esteem was well worth the project because it set a strong foundation for their learning.	



Interviewee: Theressa McCormick	Date of Interview: 1/28/94
Have you encouraged your learners to keep a log?	
Have you kept a log?	O Yes O No ● Sometimes on page 2
How many students did you start out with? 6	How many students are now in the program? 4
How many students benefitted from the program?	4
What presented difficulties for your learners?	Which one was the worst?
<ul> <li>☒ Hardware</li> <li>☒ Phone Problems (static, call waiting, etc.)</li> <li>☒ Telecommunications Software</li> <li>☐ Educational Software</li> <li>☐ Management System Problems</li> <li>☒ Log-on Process</li> <li>☐ Macintosh Interface</li> <li>☐ IBM Interface</li> <li>☐ Support from Teacher</li> <li>☐ Support from MCOL</li> <li>☐ Motivation</li> <li>☐ Household Distractions</li> <li>☐ Pre/Post Project Testing Procedures</li> </ul>	O Hardware O Phone Problems (static, call waiting, etc.) Telecommunications Software O Educational Software O Management System Problems O Log-on Process O Macintosh Interface O IBM Interface O Support from Teacher O Support from MCOL O Motivation O Household Distractions O Pre/Post Project Testing Procedures
What presented difficulties for you?	
☐ Phone Problems (static, call waiting, etc.) ☐ Lo ☐ Telecommunications Software ☐ Ed. Software (technically, does it work?) ☐ IB ☐ Content of Software	re/Post Project Testing Procedures  Discription Support from MCOL  Discription Motivation  Activation  Activation
What presented the worst difficulty for you?	
O Phone Problems (static, call waiting, etc.) O Lo O Telecommunications Software O Ed. Software (technically, does it work?) O IE O Content of Software	re/Post Project Testing Procedure O Support from MCOL og-on Process O Motivation acintosh Interface O Lack of Time/Money of M Interface O Lack of a computer at home apport from Organization apport from Drexel
How did you choose your participants?	
Years in the Program Perceived Motivation Personal Acquaintence Previous Computer Ex	
Would you do this project again?   Yes O No	Were your expectations of the project met? Yes O No
What would you do differently?	pro/pact tacting or yory little
More preparation for staff to learn the system. No	pre/post testing, or very fittle.



Comment about learner logs:
Had difficulties getting them to complete logs. Feedback from learner's was pretty good once they remembered to
complete log.
Comment about teacher logs:
I wish I would have had more time to devote to it. It was very difficult finding the time or remembering what I wanted
to write once I had time.
$\cdot$
7421 11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Why did your students drop?
It was never clear as to why the 2 students dropped couldn't or wouldn't participate, may be a lack of motivation.
Why did your other students stay in?
They were excited and motivated about the computers. One student bought software to use at home. Thought they could
get some marketable job skills as well as impove their learning. Also liked the idea that they could learn at home when
they had time or just wanted to.



In what ways did students be	nefit from the program?		
Their writing and math skills self-esteem was evident.	improved some and just the know	ledge of the computer. A marked im	provement in their
In what ways did students no	t benefit from the program?		
None.			
	( ) ( ) ( ) ( )		
Do your students feel the proj		students to keep computer longer tha	n project ran hut
they didn't use the modem to	access IMSATT.	students to keep computer longer tha	n project ran, but
Do you feel the project is succ	essful? Why		
Yes, we were able to put comp	outers into student's homes.	i	



Interviewee: Donna Roush	Date of Interview: 1/28/94
Have you encouraged your learners to keep a log?	Yes O No O N/A     Make Log Comments
Have you kept a log?	Yes O No O Sometimes on page 2
How many students did you start out with? 12	How many students are now in the program? 10
How many students benefitted from the program?	10
What presented difficulties for your learners?	Which one was the worst?
<ul> <li>☒ Hardware</li> <li>☒ Phone Problems (static, call waiting, etc.)</li> <li>☒ Telecommunications Software</li> <li>☒ Educational Software</li> <li>☐ Management System Problems</li> <li>☒ Log-on Process</li> <li>☐ Macintosh Interface</li> <li>☐ IBM Interface</li> <li>☐ Support from Teacher</li> <li>☐ Support from MCOL</li> <li>☐ Motivation</li> <li>☐ Household Distractions</li> <li>☐ Pre/Post Project Testing Procedures</li> </ul>	O Hardware O Phone Problems (static, call waiting, etc.) Telecommunications Software O Educational Software O Management System Problems O Log-on Process O Macintosh Interface O IBM Interface O Support from Teacher O Support from MCOL O Motivation O Household Distractions O Pre/Post Project Testing Procedures
What presented difficulties for you?	
☐ Phone Problems (static, call waiting, etc.) ☐ Log-on Pro ☐ Telecommunications Software ☐ Macintosh ☐ Ed. Software (technically, does it work?) ☐ IBM Inter	Interface
What presented the worst difficulty for you?	
<ul> <li>Phone Problems (static, call waiting, etc.)</li> <li>Telecommunications Software</li> <li>Ed. Software (technically, does it work?)</li> <li>IBM Inter</li> </ul>	face O Lack of a computer at home om Organization
How did you choose your participants?	
☐ Years in the Program ☐ Perceived Motivation ☐ Personal Acquaintence ☐ Previous Computer Experience	☐ Random ☐ Grade level ☐ Eligible for DPA ☐ N/A
Would you do this project again?   Yes ONo  What would you do differently?	Were your expectations of the project met?  Yes O No
Have a full day of training for teachers well in advance of whardware/software at home. Much practice with logon techniques.	



Comment about learner logs:
There was a really nice shift because at first they blammed themselves, but then became more aware of
software/hardware problems. Enhanced their problem solving skills and their self-esteem.
Comment about teacher logs:
It was a really great tool for assessment at the end of the project. I read parts of it at the graduation ceremony to show
them how far they'd come.
·
Why did your students drop?
Personal reasons.
Why did your other students stay in?
Got very excited about the project once they saw it working. They started teaching each other and utilizing the pnote
/term talk features.



In what ways did students benefit from the program?
Their problem solving skills were sharpened, grammar improved through reinforcement, a great awareness toward spelling and accuracy was evident.
In what ways did students not benefit from the program?  Not having a printer was very disturbing-word processing was hindered.
Thot having a printer was very disturbing-word processing was mindered.
Do your students feel the project is successful? Why?
Yes, they really liked being able to work at their convenience.
Do you feel the project is successful? Why
Yes, I thought it was successful in way I'd never imagined. The ability for learners to send me notes and my being able to answer them immediately was very beneficial.



# ATTACHMENT 2: FORMS

Evaluations
Data Collection
Student Agreement
Form Letters





### Culture-Free Self-Esteem Inventories Second Edition

### FORM AD

Name	A	ge	_Date			
Location	· ·		_Date of I	Birth	<del></del>	
Examiner	Total	G	S	P	L	

Directions

Please mark each question in the following way: If the question describes how you usually feel, make a check mark ( $\sqrt{}$ ) in the "yes" column. If the question does not describe how you usually feel, make a check mark ( $\sqrt{}$ ) in the "no" column. Check only one column (either yes or no) for each of the 40 questions. This is not a test, and there are no right or wrong answers.

## Culture-Free Self-Esteem Inventories Sample Survey Questions \*

- Can you do most things as well as others?
- Do most people you know like you?
- Are you as intelligent as most people?
- Would you change many things about yourself if you could?
- Are you lacking in self-confidence?
- Is it difficult for you to express your views or feelings?
- Would you like to be as happy as others appear to be?
- Are you a failure?
- Do people like your ideas?
- Do most people respect your views?

\* Contract limitations prohibit providing a full copy of the assessment.



Form C

**GRADES 12-14** 

# SSHA

### Survey of Study Habits and Attitudes

Brown-Holtzman

Do not open this booklet until you are told to do so. Wait for the examiner's instructions.

DO NOT MAKE ANY MARKS IN THIS BOOKLET



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THE PSYCHOLOGICAL CORPORATION HAROOURT BRACE JOVANOVICH, INC.

#### **DIRECTIONS**

The purpose of this survey is to furnish an inventory of study habits and attitudes to serve as a foundation for self-improvement. If taken seriously, this inventory can help you obtain a better understanding of how to study properly. If you will honestly and thoughtfully mark all of the statements on the pages that follow, you will be able to learn many of your study faults. The value of this survey to you will be in direct proportion to the care with which you mark each statement. Since your answers will be treated with the strictest confidence, feel free to answer all questions frankly.

You will mark your answers on a separate answer sheet. Make no marks on this booklet. There are 100 statements in this questionnaire. For each statement a five-point scale is provided for indicating whether you rarely, sometimes, frequently, generally, or almost always do or feel as the statement suggests. You are to rate yourself on each statement by marking the space on your answer sheet that represents your answer choice. Thus, for example, you would mark space R on your answer sheet if you rarely follow the procedure described or if you feel that the statement is rarely true for you. In marking your answers, be sure that the number of the statement agrees with the number on the answer sheet. Make sure that your marks are heavy and black. Make no stray marks on the answer sheet and erase completely any mark that you wish to change.

To aid you in answering this questionnaire, the terms have been defined on a percentage basis as follows:

- R RARELY means from 0 to 15 per cent of the time.
- S SOMETIMES means from 16 to 35 per cent of the time.
- F FREQUENTLY means from 36 to 65 per cent of the time.
- G GENERALLY means from 66 to 85 per cent of the time.
- A ALMOST ALWAYS means from 86 to 100 per cent of the time.

Remember, you are asked to rate yourself, not in accordance with what you think you should do or feel, or as you think others might do or feel, but as you yourself are in the habit of doing and feeling. When you cannot answer a statement on the basis of actual experience, mark the statement according to what you would be most likely to do if the situation should arise.

There are no "right" or "wrong" answers to these statements, and there is no time limit for this questionnaire. Work as rapidly as you can without being careless, and do not spend too much time on any one statement. Please do not omit any of the statements.



### Survey of Study Habits and Attitudes Sample Survey Questions \*

- When my assigned homework is extra long or unusually difficult, I either quit in disgust or study only the easier parts of the lesson.
- I feel that teachers lack understanding of the needs and interests of students.
- Even though I don't like a subject, I still work hard to make a good grade.
- I think that teachers like to exercise their authority too much.
- I hesitate to ask a teacher for further explanation of an assignment that is not clear to me.
- I feel that students are not given enough freedom in selecting their own topics for themes and reports.
- Telephone calls, people coming in and out of my room, "bull-sessions" with my friends, etc., interfere with my studying.
- In taking notes, I tend to take down material which later turns out to be unimportant.
- I put off writing themes, reports, term papers, etc., until the last minute.
- I think that teachers tend to talk too much.
- I believe that teachers tend to avoid discussing present-day issues and events with their classes.
- My studying is done in a random, unplanned manner-is impelled mostly by the demands of approaching classes.
- I believe that grades are based upon a student's ability to memorize facts rather than upon the ability to "think" through.
- \* Contract limitations prohibit providing a full copy of the assessment.



### Student Reporting

Learners will be asked to keep a journal which would be provided to them. They would be asked to write an entry into the journal as often as they would like with a minimum of once per week (if they wanted to write after each on-line session, they would be able to).

The journal pages would contain the following areas for student reporting.

	Date		
How long did you work on the computer?	hrs.		
What did you work on? (check which one)	On-line		
Did	Word Processing		
Did you work alone on your work.	Yes No		
Did you work with someone else	Yes No		
Did any family members work on the computer	? Yes No		
Did you have trouble at all with your work?	Yes No		
Did you have trouble getting the computer to w			
	Yes No		
Did you have trouble getting the software to wo	ork properly?		
	Yes No		
Did you have trouble understanding the assignm			
•	Yes No		
Did you enjoy your work session today?			
•	Yes No		
Why or why not?			
Did you try to get help?	Yes No		
What kind of help did you try?	On-Line Teacher		
		_	
Were you successful?	Yes No		



### IESD TEACHER MONTHLY LOG

Student:
Institution:
Teacher:
Group (circle one): Experimenta! Control
Directions: Use a copy of this log sheet once a month to note significant milestones in each student's academic development.
Mathematics
Describe the one or two most important changes this past month in this student's behavior that indicate significant growth in Mathematics.
Reading
Describe the one or two most important changes this past month in this student's behavior that indicate significant growth in Reading.
Writing
Describe the one or two most important changes this past month in this student's behavior that indicate significant growth in Writing.



### Student Self-Assessment Form

Student's Name
Institution
Instructor
Class
Date
Use this form to assess your improvement as a learner.
How have your reading skills improved since the beginning of the year? (Check on choice.)
1. Great Improvement
2. Some Improvement
3. Little Improvement
Please explain where you have improved and where you still have difficulty:
What are the most important causes for your improvement? (Check as many as you want.)
Adult education classes
Using the computer at home
Help from a family member
Help from a friend
Other (Please explain):

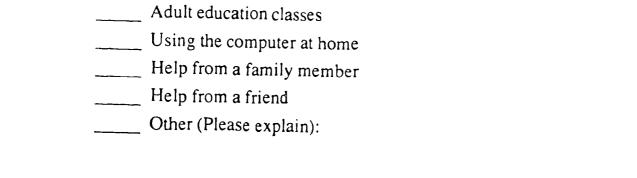


How have your math skills improved since the beginning of the year? (Check one choice.)	
1. Great Improvement	
2. Some Improvement	
3. Little Improvement	
Please explain where you have improved and where you still have difficulty	y:
What are the most important causes for your improvement? (Check as man want.)	ıy as you
Adult education classes	
Using the computer at home	
Help from a family member	
Help from a friend	
Other (Please explain):	



How have your writing skills improved since the beginning of the year? Check one choice.)
1. Great Improvement
2. Some Improvement
3. Little Improvement
Please explain where you have improved and where you still have difficulty:
What are the most important causes for your improvement? (Check as many as you
ant.)
Adult education classes
Using the computer at home
Help from a family member
Help from a friend
Other (Please explain):







want.)

### Student Reporting

Learners will be asked to keep a journal which would be provided to them. They would be asked to write an entry into the journal as often as they would like with a minimum of once per week (if they wanted to write after each on-line session, they would be able to).

The journal pages would contain the following areas for student reporting.

	Date	
How long did you work on the computer?		hrs.
What did you work on? (check which one)	On-line	<del></del>
		rocessing
Did you work alone on your work.	Yes	_ No
Did you work with someone else	Yes	_No
Did any family members work on the computer	? Yes	No
Did you have trouble at all with your work?	Yes	No
Did you have trouble getting the computer to w		
	Yes	No
Did you have trouble getting the software to we		
	Yes	No
Did you have trouble understanding the assignt	nent on the $\alpha$	omputer?
·	Yes	No
Did you enjoy your work session today?		
	Yes	No
1176		
Why or why not?		
		_
Did you try to get help?	Yes	_ No
What kind of help did you try?	On-Line	Teacher
Were you successful?	Yes	No
Comments:		



### <u>Drexel University's Office of Computing Services</u> <u>Power Learning Project</u>

#### Learner's Report

Learners have been asked to keep a journal of their computer usage. This journal will record learner's feelings and experiences about using the computer and the CYBIS Integrated Learning System. This form will be completed anytime the learner experiences technical difficulties or has a rewarding experience they wish to share.

Learner's Name:		Today's Date:		
How long did you work on	the computer?	Hours	Minutes	
What did you work on? CY	BIS V	Word Processing .	Other	
Did you work alone or with	someone? Alo	ne W	ith Someone	_
If you worked with someon	e, who did you v	work with? Tuto	or	
Friend Classmat	e Fan	nily member	Other	_
Did you have trouble gettin	g the computer t	o work properly?	If so, what happened	?
				,
Did vou have trouble gettir	ng the software to	o work properly?	If so, what happened?	
Did you have trouble gettir	ng the software to	o work properly?	If so, what happened?	
Did you have trouble gettir	ng the software to	o work properly?	If so, what happened?	
Did you have trouble gettir	ng the software to			
Did you enjoy your session	today? Yes	N	0	
	today? Yes	N	0	
Did you enjoy your session	today? Yes	N	0	
Did you enjoy your session Why?	today? Yes	N	0	
Did you enjoy your session Why?  Did you try to get help?	today? Yes Yes	N	0	
Did you enjoy your session Why?  Did you try to get help? What kind? Phone	Yes	N No Term-Talk	0 Term-Ask	
Did you enjoy your session Why?  Did you try to get help? What kind? Phone  Term-Comment	Yes Pnote	N No Term-Talk	0 Term-Ask _	
Did you enjoy your session Why?  Did you try to get help? What kind? Phone	Yes Pnote Yes	No Term-Talk No	0 Term-Ask _	



Teacher Report
This report would be filled out by literacy teachers once per week minimum.
DateHow long did you work with Imsatt project this week?
Helping Studentshours Managing recordshours Reviewing and assigning lessonshours
Did you have trouble at all with your work? yesno
Did you have trouble getting the hardware to work properly?  yesno
Did you have trouble getting the software to work properly?  yesnono
What did you like about the software lessons you worked with today?
What did you dislike about the software lessons you worked with today?
Do the lessons enhance your students' experiences?  yesno
Why or why not?
Do your students use the computer more for on-line lessons? yes or fo off-line applications (word processing etc.) yes
Comments:



### Power Learning Project Phone Interview of Teachers and Administrators

Interviewee: Date of Interview:
Have you encouraged your learners to keep a log? OYes ONo ON/A
Comment about learner logs?
Have you kept a log? O Yes O No O Sometimes
Comment about teacher logs:
Do your students feel the project is successful? O Yes O No O Sometimes
Why?
$\cdot$
Do you feel the project is successful?  O Yes O No O Sometimes
Why? Teachers
Why? Administrators
How many of your students benefitted from the program?

Page 1



### Power Learning Project Phone Interview of Teachers and Administrators

In what ways did students benefit from the program?				
·				
In what ways did students not benefit from th	ne program?			
What presented difficulties for your learners	s?			
☐ Hardware ☐ Phone Problems (static, call waiting, etc.) ☐ Telecommunications Software ☐ Educational Software ☐ Management System Problems	☐ Log-on Process ☐ Motivation ☐ Macintosh Interface ☐ Household Distractions ☐ IBM Interface ☐ Pre/Post Project Testing Procedures ☐ Support from Teacher ☐ Support from MCOL			
Which was the worst?				
O Hardware O Phone Problems (static, call waiting, etc.) O Telecommunications Software O Educational Software O Management System Problems	O Log-on Process O Motivation O Macintosh Interface O IBM Interface O Support from Teacher O Support from MCOL			
What presented difficulties for you?				
☐ Hardware ☐ Phone Problems (static, call waiting, etc.) ☐ Telecommunications Software ☐ Ed. Software (technically, does it work?) ☐ Content of Software ☐ Management System Problems	☐ Pre/Post Project Testing Procedures ☐ Support from MCOL ☐ Log-on Process ☐ Motivation ☐ Macintosh Interface ☐ Lack of Time/Money ☐ IBM Interface ☐ Lack of a computer at home ☐ Support from Organization ☐ Support from Drexel			
What presented the worst difficulty for you?				
O Hardware O Phone Problems (static, call waiting, etc.) O Telecommunications Software O Ed. Software (technically, does it work?) O Content of Software O Management System Problems	O Macintosh Interface O Lack of Time/Money			
How did you choose your participants?  Years in the Program Perceived Motivation Random Grade level Personal Acquaintence Previous Computer Experience Eligible for DPA N/A  Would you do this project again? OYes ONo				



#### Power Learning Project Phone Interview of Teachers and Administrators

If so, what would you do differently?
Were your expectations of the project met? O Yes O No
How many students did you start out with? How many students are now in the program?
Why did some of your students drop?
Why did the other students finish the program?
why did the other students thish the program:



Page 3

#### Post-Power-Learning Project Teacher Interview Interviewee Date of Question: Have you encouraged your learners to keep a log? O Yes O No O N/A Comment about learner logs (see next page): O Yes O No O Sometimes Have you kept a log? Comment about teacher logs (see next page)1:38:13 PM How many students did you start out with? How many students are now in the program? How many students benefitted from the program? What presented difficulties for your learners? Which was the worst? ☐ Hardware O Hardware Phone Problems (static, call waiting, etc.) O Phone Problems (static, call waiting, etc.) ☐ Telecommunications Software O Telecommunications Software ☐ Educational Software O Educational Software ☐ Management System Problems O Management System Problems ☐ Log-on Process O Log-on Process ☐ Macintosh Interface O Macintosh Interface □ IBM Interface O IBM Interface ☐ Support from Teacher O Support from Teacher O Support from MCOL ☐ Support from MCOL ☐ Motivation O Motivation ☐ Household Distractions O Household Distractions ☐ Pre/Post Project Testing Procedures O Pre/Post Project Testing Procedures What presented difficulties for you? ☐ Pre/Post Project Testing Procedures ☐ Support from MCOL ☐ Hardware ☐ Log-on Process ☐ Motivation Phone Problems (static, call waiting, etc.) ☐ Lack of Time/Money ☐ Telecommunications Software ☐ Macintosh Interface ☐ Ed. Software (technically, does it work?) ☐ IBM Interface ☐ Lack of a computer at home Content of Software ☐ Support from Organization ☐ Support from Drexel ☐ Management System Problems What presented the worst difficulty for you? O Pre/Post Project Testing Procedure O Support from MCOL O Hardware O Phone Problems (static, call waiting, etc.) O Log-on Process O Motivation O Lack of Time/Money O Telecommunications Software O Macintosh Interface O Lack of a computer at home O Ed. Software (technically, does it work?) O IBM Interface O Content of Software O Support from Organization O Management System Problems O Support from Drexel How did you choose your participants? ☐ Years in the Program ☐ Perceived Motivation ☐ Grade level Random ☐ Personal Acquaintence ☐ Previous Computer Experience ☐ Eligible for DPA ☐ N/A Were your expectations of the project met? O Yes O No Would you do this project again? O Yes O No What would you do differently?



## Post-Power-Learning Project Teacher Interview Comment about learner logs: Comment about teacher logs (see next page)1:38:13 PM Why did your students drop? Why did your other students stay in?



#### Post-Power-Learning Project Teacher Interview

In what ways did students benefit from the program?	•
	••••••
	••••••
	•••••••
	••••••
In what ways did students not benefit from the program?	
`	•••••
-	
	••••••
	••••••
Do your students feel the project is successful? Why?	
	••••••
	••••••
Do you feel the project is successful? Why	



#### Dear CFL Learner:

Thank you for participating in the computer learning project. CFL hopes you find your experience with the Macintosh computer and the software meaningful and enjoyable. In order for the computers to be used at home, CFL needs to sign an agreement with you. The agreement makes certain that CFL and the learner understand the terms of the computer learning project.

The terms of the computer learning project are:

- 1. The Macintosh computer given to you on June 1, 1993, is the property of the Center for Literacy.
- 2. You are responsible for general care of the Macintosh computer at your home during the project.
- 3. The Macintosh computer is to be returned to the Center for Literacy at the end of the project.
- 4. The Center for Literacy is responsible for any costs related to the project. These costs include telephone charges to call for the software up to 45 hours per month.
- \* The Philadelphia County Assistance Office will help pay for part of the phone costs if you already receive assistance.

Please check here if you receive County assistance \_\_\_\_\_.

5. Class attendance is necessary for the success of the project. If you cannot attend three weeks in a row, CFL will give your computer to another student.

Again, thank you for participating in the project and good luck.

CFL	Learner	
Date		





# Instructor's On-Call Schedule (Group PHIADMIN)

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday
Le Quyen 10:00-12 noon		Scot 7:00-9:00 PM	Fred 6:30-8:30 PM	Terry 6:00-8:30 PM	
Sam 10:30-12:30 PM	Sam Theressa 10:30-12:30 PM 8:00-10:00 PM	John 9:00-10:00 PM		Pedro 8:00-10:00 PM	



to All Learners An Invitation in the



to All Learners An Invitation



Power Learning Program in the

to attend a special orientation session where you can:

- learn about how the power learning can help you
- meet other adult learners
- share your ideas about home learning

will sponsor two orientation sessions the Mayor's Commission on Literacy in the Mayor's Reception Room City Hall, Room 202 Saturday, November 14, 11:00 a.m. tuesday, November 17, 7.00 p.m.

875–6602, to let us know if you'll be there! Call the Mayor's Commission on Literacy,

where you can:

to attend a special orientation session

Power Learning Program

learn about how the power learning can help you

meet other adult learners

share your ideas about

will sponsor two orientation sessions The Mayor's Commission on Literacy in the Mayor's Reception Room City Hall, Room 202 home learning

Saturday, November 14, 11:00 a.m. Tuesday, November 17, 7:00 p.m.

875–6602, to let us know if you'll be there! Call the Mayor's Commission on Literacy,

## LONG DISTANCE LEARNING

#### THE POWER LEARNING PROJECT

cordially invites you to its

#### MID-YEAR PROJECT PARTY



Thursday, April 29, 1993
Mayor's Reception Room
202 City Hall
6:00 p.m. - 7:30 p.m.
(entrance Northeast corner of City Hall)

Come and meet other learners

Ben Burenstein from Drexel University will give computer pointers

Make new P-Note Pals

Enjoy this Celebration of Learning

and much, much more...



Mayor's Commission on Literacy 875-6602



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Mayor's Commission on Literacy 875-6602



DATE:

March 11, 1993

SUBJECT:

The Power Learning Project: Literacy for the Year 2000

TO:

District Administrators

FROM:

William E. Stroup

Deputy Executive Director

#### PURPOSE:

To announce an innovative demonstration project in adult education and instructions on the method of issuance of the special allowances for the project.

#### BACKGROUND:

The Mayor's Commission on Literacy with generous support from Bell of Pennsylvania has embarked on a promising new partnership aimed at building the literacy skills of welfare recipients, The Power Learning Project: Literacy for the Year 2000.

#### DISCUSSION:

The Power Learning Project will enable 100 learners to supplement their classroom instruction by accessing computer assisted instruction from their homes via a modern hook-up with main frame computer. This program integrates advance technology with classroom instruction so that the learners can spend more hours a week working toward their educational goals. Attached will you find a Power Learning Program Goals and Objectives Pactsheet and a listing of Participating Agencies in the Power Learning Program.

Support from Philadelphia County Assistance Office is critical to the success of this program. Each month the learners will be charged \$20.00 for accessing the mainframe on which there are several hundred hours of educational programs. This charge will be authorized as a special allowance (equipment/supplies) for the first six months of this project. Districts will issue the entire six (6) months allowance as a One Time Issuance (O.T.I.). The method of issuance for the O.T.I. will be Restricted Endorsement and Certified Mail sending it directly to the participating agency from the attached list.

#### NEXT STEPS:

- 1. Share this memo with appropriate staff.
- 2. Contact Barry Salandro, Central Literacy Education Unit, 560-3417 with any questions or problems.

#### WES/kt

cc: Executive Staff
Central New Directions Supervisors
Mayor's Commission on live



### ATTACHMENT 3: TEACHER TRAINING MATERIAL



#### TEACHER TRAINING MEETING #1 AGENDA

- I. What is courseware?
- II. What is telecommunications?
- III. What is IMSATT?
- IV. Potential advantages and drawbacks to an on-line educational system
- V. The Basics of CYBIS
  - A. Accessing the system: logging on
  - B. Available courseware
    - 1. The content of CYBIS: Curriculum, course, module, lesson
    - The structure of CYBIS: Assessment, Training, Post-assessment, Remediation or advancement
  - C. Electronic mail and bulletin boards
- VI. HyperCard Presentation on Using CYBIS
- VII. Set up rotation to make sure their is one teacher on each night learners might log on VIII. Set up appointments for individual trainings

#### TEACHER TRAINING MEETING #2 (INDIVIDUAL TRAINING) AGENDA

- I. Review Previous Training
- II. Give out teacher logons
- III. Log on and explore teacher menus
  - A. How to access the courseware catalog
  - B. Electronic mail
  - C. Viewing learner records
- IV. Log on and explore learner menus
  - A. Courseware
    - 1. Integrated Learning System sequenced courseware
    - 2. Additional courseware: Games and unsequenced educational software
  - B. Learner Email
- V. Take an assessment and explore a lesson
- VI. Give out suggested teacher and learner logs
- VII. Explain support system.

#### VIII. QUESTIONS AND ANSWERS. TEACHER TRAINING MEETING #3

#### AGENDA

- I. Introductions and overall comments on how the project is going
  - A. How are the machines working?
  - B. How is the courseware working for your group?
- II. Logon problems
  - A. Adjusting the logon for teachers who have call waiting.
  - B. Teacher questions and comments on the logon proccess
- III. Viewing learners' results:
  - A. Viewing data from the entire group
  - B. Viewing data from individuals
  - C. Viewing the work of learners currently on-line.
- IV. Communications using the bulletin board



- A. Notes to and with learners
- B. Teacher notes
- V. Ouestions and Answers

#### TEACHER TRAINING MEETING #4 AGENDA

- I. Review and discuss positive and negative experiences
- II. Review and discuss any alterations in the logon, system, or record-keeping which have occurred since the inception of the project, including implementation of additional courseware.
- III. Review examining learner results
- IV. On-Line Communication
  - A. Term-Talk
  - B. Term-Ask
  - C. Term-Comment
  - D. Bulletin Board
  - E. Student Monitoring
- IV. Review of logs and record-keeping
- V. Questions and Answers

#### TEACHER TRAINING MEETING #5 AGENDA

- I. Review and discuss positive and negative experiences
- II. Review and discuss any alterations in the logon, system, or record-keeping which have occurred since the inception of the project, including implementation of additional courseware.
- III. Review examining learner results
- IV. On-Line Communication
  - A. Term-Talk
  - B. Term-Ask
  - C. Term-Comment
  - D. Bulletin Board
  - E. Student Monitoring
- IV. Review of logs and record-keeping
- V. Questions and Answers



#### FOR TEACHERS AND INSTRUCTORS

#### HOOKING UP YOUR MODEM

- 1. Run a phone cord from your wall jack to the modem.
- 2. Run a phone cord from your modem to your phone.
- 3. Run the appropriate connection from the modem to the jack on the back of the computer with a little telephone icon.
  - 4. If modem has an external power cord, connect it. If not, don't worry.

#### SIGN-ON PROCEDURE

- 1. Put in your Cybis and System disk, metal side forward, title up.
- 2. Double click on the icon which says MacPAD. You will get a blank screen.
- 3. Type atdt 1-800-252-0778, then Return (no need for dashes). If you are calling from a type of line where you need to type 9 first to get out, type atdt 9-1-800-252-0778.
- 4. The phone will be dialed. You may see text which says "Dialing" and "Ringing,", you may hear the phone dial and ring, or neither may happen. If nothing happens, wait a minute or two, disconnect, and try again. Try several variations. Be creative. If you are stuck here, call Ben (895-1282 work, 844-7085 home) or Terry (895-6753) (You may need to disconnect and reconnect your modern to free up the line. You will be able to tell if you hear a hissing or squealing over your regular phone line. BUT IT WILL PROBABLY WORK!!
  - 5. When it says "Connect," press < Return> twice. You will see the Cybis screens.

6Type in your username:

(not case sensitive)

- 7. Type in your groupname. You have 2 groups:
  - 1) phiadmin.
  - 2) phi00009

phiadmin is where you control the system, can look around, and are an instructor. phi00009 is where you are routed into the learner's system, see what they see, and take courses which they expérience.

- 8. Go up into the Keys menu and choose "Key buttons." Press the Shift-stop compination
- 9. Make up a password which is unique to you and other people would not easily guess.
- 10. Explore



#### SAMPLE OF EARLY HANDOUT TO LOG ON FROM DOS

Sign-on Procedure for IMSATT

- 1. Switch to drive A
- 2. Type access <R>
- 3. If necessary set configuration to 2400 or whatever speed the modem is.
- 4. Type atdt 1-800-252-0778, then Return twice (no need for dashes)
- 5. Settings will be 7-e-half
- 6. Username: jennyfer
- 7. Grpname:
  - 1) phiadmin (for administrative purposes)
  - 2) phi00009 (for exploring the student sign-on)
- 8. Function Keys:

F7 is LAB (label?)

F9 is DATA

Next is enter or return

F8 is BACK (and quit, at the end)

F10 is Stop

Shift-F10 seems to be quit.



#### Power Learning Project MacPad/Modem Log-On Directions

#### Step-One

- Make sure your phone is connected to the modem.
- Turn on modem.
- Turn on computer.

#### Step-Two

- Place System/MacPad diskette into drive.
- Double-click on disk icon to open window.
- Double-click on MacPad icon to open program.

#### Step-Three

- Type the following if you DO NOT HAVE CALL WAITING: atdt18002520778 (This is only a temporary number!)
- Type the following if you **DO HAVE CALL WAITING**: atdt\*70,18002520778 (This is only a temporary number!)

#### Step-Four

Press the Return Key 2 times.

Wait for the following to appear:

SEE NEXT PAGE



#### To Set Up Your Modem

1. You have three cables and the modem.

One cable is for connecting the modem to the computer - we will call it the computer cable.

Another cable is for connecting the modem to the phone jack - we will call this one the phone cable.

The third cable is for connecting the modem to the electrical socket or your surge protector - we will call it the power cable.

- 2. Take the computer cable and connect it to the computer and the modem. It works just like the other computer cables we use. The large end connects to the modem, the small end to the computer in the hole under the picture of the phone.
- 3. Take the phone cable and place one end in the back of the modern in the phone jack on the right. Place the other end of the phone cable in your wall phone jack.
- 4. Take the power cable and place the small end in the hole on the left side of the back of the modem. Place the normal end into the electrical socket or your surge protector.



#### D. To Use Your Modem

- 1. Turn on your modem
- 2. Turn on your computer
- 3. Place your start-up disk in the computer
- 4. Double click on the picture of the "Start-Up" disk
- 5. Double click on the picture of the "CYBIS" folder
  - 6. Double click on the picture of the "Power Learning" document or page
  - 7. The communications program is now starting and you will see a box reading, "Dialing Power Learning"
    - Sit back and wait. You will hear the phone dial and then hear two high sounds and a screeching sound
    - Sit back and wait. You will see the word "Connect" on your screen and all sorts of words, letters and numbers
  - 8. The screen will keep moving and then stop when it reads, "[24;1H\_"
  - 9. The "\_" is a cursor and is blinking. Type "1" and press "Return" twice. The screen will start moving
    - If the screen stops and reads, "24;1H24;1HInvalid choice; please try again 24;1H" Type "1" and press "Return" twice



#### To Use "CYBIS"

 When the screen reads, "Enter your user group, and then press NEXT,"

Type the name, "smithm" and press "return"

2. When the screen reads, "Enter your user group, and then press Shift-Stop,"

Type, "phi00004" and press shift and the "stop" command

3. When the screen reads, "Enter your password, then press NEXT,"

Type your password and press "return"

4. You are now at the "Main Menu"

With the mouse or small hand on the screen, click the subject you want to do

5. You are now at the subject "Menu"

Follow the directions

#### Primary Instructor Options:

- yes a choose a lesson from an instr. file CATALOG
- yes b choose ANY lesson (by lesson name)
- yes c see who is running at the SITE
- yes d see system-wide list of USERS
- yes e access PUBLIC notes and system announcements
- yes f Receive TERM-ask requests



#### File Editing and Printing Options:

- EDIT accounts (with appropriate codewords) no
- EDIT datafiles (with appropriate codewords) no
- C request PRINTS of files no
- EDIT group "phiadmin" (with specified options) (instructor need not have group "change" code) edit OTHER groups (with specified options) (instructor must also have group "change" code) change group DESCRIPTION d no
- no
- £ no
- change group CODEWORDS or FILES (router etc.) no

#### Roster Options:

yes

j

see the ROSTER of people yes create STUDENT record no create MULTIPLE record no create AUTHOR record d no create INSTRUCTOR record no set up a TEMPLATE record no COPY a record from another group no DELETE someone from the roster no h DELETE ALL records no i

STATISTICS on records

#### General Record Editing Options:

- yes a SEE someone's record
  - no b EDIT student or multiple records
  - no c EDIT author or instructor records
  - no d TURN OFF someone's record
  - no e change spelling of student's NAME
  - no f change signon PASSWORD
  - no g set author/instructor OPTIONS
  - no h change application lesson
  - no i change student router
  - no j change student curriculum/instructor file
  - no k change EXPIRATION DATE

#### Student Record Editing Options:

- no a change current lesson
- no b change current unit
- yes c see student variables
- no d change student variables
- yes e see router variables
  - no f change router variables

#### Student Record Editing Options:

- no a change current lesson
- no b change current unit
- yes c see student variables
- no d change student variables
- yes e see router variables
  - no f change router variables

#### Active User Options:

yes a see who is RUNNING

yes b MONITOR a running student

yes c SIGN-OUT a running student

· yes d send MESSAGE to a running student

Press HELP for information.

1

#### Messages and Notes:

yes a leave a MESSAGE for someone yes b manage personal NOTES activity

#### Data Collection Options:

- yes a see individual DATA collection options
  - no b change individual DATA collection options
  - no c change group-wide DATA COLLECTION options



#### "mrouter" Options:

- yes a see CURRICULUM design
- yes b see individual curriculum STATUS
  - no c change curriculum MODULES
  - no d change module completion CRITERIA
  - no e change module PROGRESSION order
  - no f change curriculum SEQUENCES
  - no g change lesson CATALOG
  - no h change individual curriculum MODULE setting
  - no i create individual curriculum SEQUENCE
  - no j change individual SCORE or lesson COMPLETION

Press NEXT for more "mrouter" options

#### "mrouter" Options (continued):

- no a change instructor file information
- no b COPY from another mrouter CATALOG
- no c COPY another INSTRUCTOR file
- no d extend curriculum SPACE (no. of modules, etc.)
- no e DESTROY all MODULES
- no f DESTROY all SEQUENCES
- no g DESTROY the CATALOG



#### CLM Options:

- yes a see CURRICULUM design
- no b edit CURRICULUM design
- yes c see STUDENT performance data
- no d edit STUDENT performance data
- yes e see GROUP summary data
- yes f collect GROUP summary data
- no g edit group MASTER CALENDAR
- no h change SCHEDULING options
- no i change student GRADEBOOK access
- no j change response RECORDING options
- no k change TEST locks/interruption controls
- no 1 change OFF-LINE testing options



#### Making New Words 2

Before proceeding with this course, there are a few things you should understand fully:

- This course is divided into 14 modules.
- Each module is given a single letter name for easy reference.
- Each module contains:
- -- one or more objectives (objectives describe what you will be able to do when you have finished this course)
- --some test questions to see how well
- -- a list of study materials which will help you learn to master each objective Making

You can look at the description of any listed module and see its objectives at any time.

You can test on any module listed under:

"MODULES YOU CAN WORK ON NOW"

Following each test, the system will select study materials best suited to your needs.

The recommended procedure is as follows:

- 1) Study the module list.
- 2) Read the description and objectives in the module(s) of interest.
- 3) Select a module and try taking the test for it -- or skip the test and ask for a study assignment.
- 4) If you take the test and master it, select another module. If you do not, you should study the assigned materials for the module and then try the test.
  - 4. There are 9 "Courses" in reading. Course 1 , "Making New Words 1," has 15 modules.
- 2, Making New Words 2, Has 14 modules. 3, Understanding New Words 1, has 17 modules.
- 4, Understanding New Words 2, has 13 modules. 5, Understanding What you Read 1, has 21.
- 6, Understanding What You Read 2, has 12. 7, thinking about what you read 1, has 16. 8, thinking about what you read 2, has 11.9, Judging what you read, has 20. 139 modules



Changing the Way the World Learns



Welcome to the "cdc" system, a service of Control Data Corporation

Enter your user name, and then press NEXT. terry

Enter your user group, and then press SHIFT-STOP. phi00009

While holding down the SHIFT key, press the key labeled STOP.

C'BIS is a trademark of Control Data Corporation.

Préss HELF for information about signing on to the system.

Shift - H = Shift Stop

Left Hand Right Hand

Médnesda Januar 20. 1993 11:34 am 4 Users Time

Changing the Way the World Learns



Welcome to the "cdc" system, a service of Control Data Corporation

Remember to press SHIFT-STOP when you want to sign off.

Enter your password, then press NEXT to continue, or press LAB for additional options.

» xxxxxxxx

COBIS (see trademark : 6 Confinel Data Cirpinatiin. Press HELP ::r/infinmation abiot sisning in to the s stem.

Kept = Return

#### IMSATT

IMSATT

HOMER - Home Education Resource



Copyright IMSATT CORP 1992 (C)
Click on the screen or press NEXT to continue

x6

Main Menu

- a) MATH COURSES
- b) + LANGUAGE SKILLS COURSES
- c) + SCIENCE COURSES
- d) + SOCIAL STUDIES COURSES
- e) ♦ COMPUTER AWARENESS
- f) + NOTES FILES
- g) ♦ OTHER

P) PERSONAL NOTES

x) LOGOFF SYSTEM

Please click or or press the letter of your selection



Math Courses BASIC SKILLS MATH HIGH SCHOOL SKILLS (GED) MATH C) ALGEBRA a) GEOMETRY MATH LESSONS e) f) EDUCATIONAL GAMES X) PREVIOUS MENU Please click on or press the letter of your selection DO Besic Skills mith for I how \$ 15 minutes. Language Skills Courses BASIC SKILLS LANGUAGE ARTS (GRAMMAR) a) b) READING COURSES **c**) HIGH SCHOOL SKILLS (GED) WRITING ENGLISH AS A SECOND LANGUAGE FOR SPANISH SPEAKERS d) MAKE A SENTENCE COURSE e) f) COMMUNICATIONS SKILLS g) LANGLIAGE LESSONS h) EDUCATIONAL GAMES x) PREVIOUS MENU Please click on or press the letter of your selection No Baser Skelle Language arts for I have and is minute.

X

156

Science Courses

- a) HIGH SCHOOL SKILLS (GED) SCIENCE
- b) ASTROLOGY: A HERITAGE FROM THE STARS

x) PREVIOUS MENU

Please click on or press the letter of your selection

#### Social Studies Courses

- a) HIGH SCHOOL SKILLS (GED) SOCIAL STUDIES
- b) BUSINESS IN OUR SOCIETY

X) PREVIOUS MENU

Please click on or press the letter of your selection



Computer Awareness Course HIGH SCHOOL SKILLS (GED) COMPUTER AWARENESS a) X) PREVIOUS MENU Please click on or press the letter of your selection Notes Files NOTES ON LITERACY a.)

x) PREVIOUS MENU

Please click on or press the letter of your selection

Read Notes Feles to update on current news ERIC It Power Learning Project 153

ጓ	,	7						
	OTHER GAMES	Page 1 of 3						
		_}						
a.)	HOW TO SELECT AND GET A JOB							
(d								
c)								
(a)		NAGEMENT)						
(e)								
£)								
g)								
h)								
i)								
j)								
1	NEXT PAGE	x) PREVIOUS MENU						
-	Please click on or press the letter	of your selection						
-								
L V	<i>'</i>							
14								
	OTHER GAMES	Page 2 of 3						
a	a) CONTINENTAL BASEBALL LEAGUE							
	b) THE TRUCKING GAME							
	c) NUMBER GUESSING GAME							
a								
e								
g) RESTAURANT GAME: STARTING & OPERATING								

n) NEXT PAGE

TIC-TAC-TOE GAME

h)

i)

X) PREVIOUS MENU

Flease click on or press the letter of your selection

DR. LOBO: MYSTIC, EMBIBIST, MIND READER

OTHER GAMES Page 3 of 3

- a) REACTION TIME TESTING
- b) PING-PONG GAME

n) NEXT PAGE

X) PREVIOUS MENU

Please click on or press the letter of your selection

#### PERSONAL NOTES

Press: LAB to read your notes
DATA for other options
HELP for explanation
SHIFT-DATA to send non-CYBIS mail

To whom do you wish to send a note:

Name > terry

Group

System

TYPE NAME OF Person you wish to send mail to and then Press Return.

#17

#### PERSONAL NOTES

Press: LAB to read your notes
DATA for other options
HELP for explanation
SHIFT-DATA to send non-CYBIS mail

To whom do you wish to send a note:

Name = terry
Group >> phiadmin
System

Type the group name of the person you are sending mail to and then press return.

#### PERSONAL NOTES

Press: LAB to read your notes
DATA for other options
HELP for explanation
SHIFT-DATA to send non-CYBIS mail

To whom do you wish to send a note:

Name = terry

Group = phiadmin

Me a pnote!

System > odo

Type the system name (see above) and press Return.

Personal note to terry / phiadmin / cdc

Press:

NEXT for the next line BACK for the previous line EDIT to change the line HELP for more directions

SHIFT-NEXT when finished
SHIFT-BACK to exit and not send
SHIFT-LAB to insert a line
SHIFT-HELP to delete lines
SHIFT-DATA to use regular editor

Start Typing your greeting, press Return to go to next

ERICINE

Personal note to terry / phiadmin / cdc

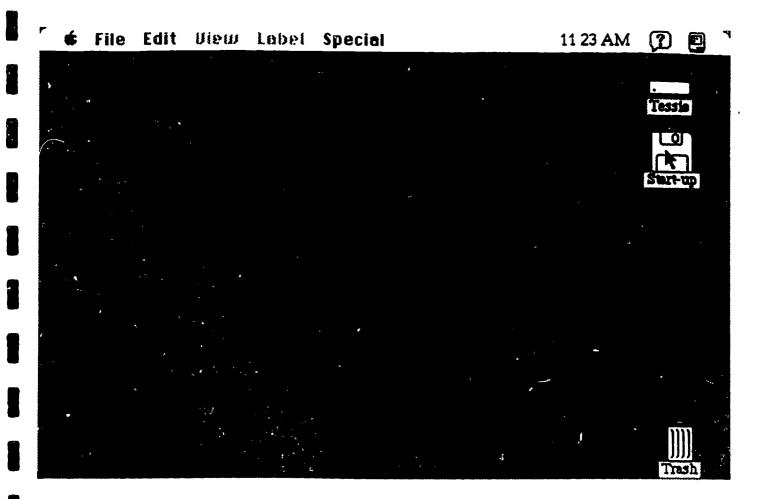
Hi Terry,

This is just a test. I am practicing how to send mail.

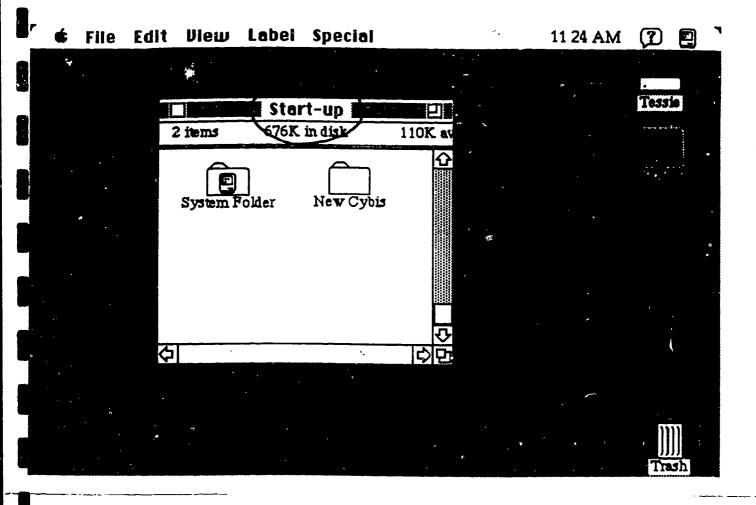
Press:

NEXT for the next line BACK for the previous line EDIT to change the line HELF for more directions

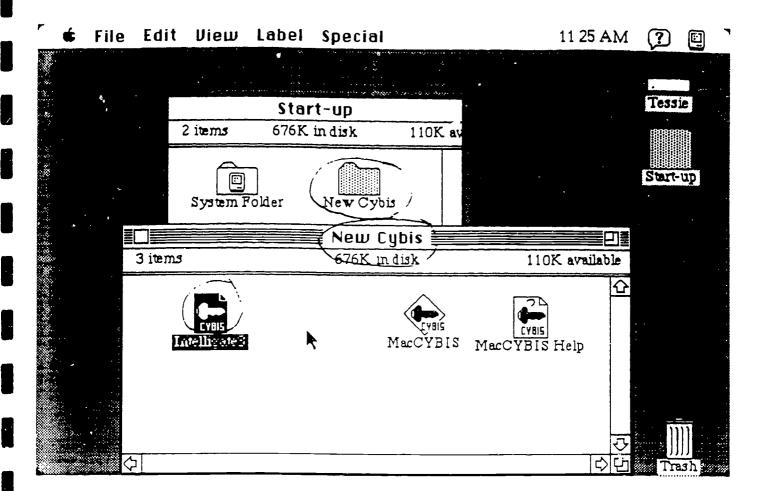
SHIFT-NEXT when finished
SHIFT-BACK to exit and not send
SHIFT-LAB to insert a line
SHIFT-HELP to delete lines
SHIFT-DATA to use regular editor



- 1. Insert the System Start-Up disk into the internal disk drive (the slot in your computer).
- 2. Click two times (double-click) on the start-up disk icon (picture) and open the disk window.



- 3. After you double-click, a window will appear. The name of this window is the same as the name of your disk. This means that this is the window for your disk.
- 4. Two folders appear in this window. The System Folder, which you NEVER have to open for anything! And the New CYBIS Folder. On this folder, click two times to open its window.



- 5. A window will appear. The name of this window is the same as the name of the folder you just double-clicked on. This means that this is the window for that folder.
- 6. In this window, 3 items or documents will appear. The ONLY one that you EVER click on is the one called Intelligate3.

Ċ

7. Double-click on the icon (picture) of the Intelligate 3 document.



Dialing "Intelligate3"

Cancel

- 8. At this point you should get a message that the program is dialing Intelligate3.
- 9. Do absolutely nothing until yourscreen comes to a full stop for at least 10 seconds.

K

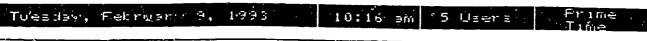
[H[J]H] [32Da [Øm`[1mIMSATT EDUCATIONAL NETWORK [8m' [ima [32Daaaaaaaaaaaaaaaaaaaaaaaaaaaa  $(\mathscr{B}\times$ x[61Cx x (B [@mAccess to the [imimsatt Educational NETwork [@mis free to selected (8 [1mx x (B [Ømsubscribers. [49C (Ø [1mx x (B [ØmFree access is limited to a maximum 45 hours of use. x(B[ØmPlease keep track of your time!!![28C(Ø[1mx x(B[ØmWhen you want to exit from the [1mIMSATT EDUCATIONAL NETWO RK [4C (Øx x (B [Ømtype [1mEXIT [Ømand press [1mENTER [Øm. [350 (Ø [1mx (BPlease enter one of the following: [24; 1H -bunking intern

10. Once your screen has stopped, it will look like the screen above. The last line of your screen will say: [24; 1H\_

# This is the BLINKING CURSOR!!

- 11. Wait for the blinking cursor to appear, and then:
  - Press the number one key (1).
  - Press the Next key (Return).
  - Wait about 5-10 seconds to see if your screen begins to move. Be Patient!!
  - •If the screen does not move, press Next again.





Changing the Way the World Learns



Welcome to the "cdc" system, a service of Control Data Systems.

Enter your user name, and then press NEXT. >> type your log-on name

Tuesday, February 9. 1993 10:16 am 5 Users Frime Time

Changing the Way the World Learns



Welcome to the "cdc" system, a service of Control Data Systems.

Enter your user name, and then press NEXT. terry

Enter your user group, and then press SHIFT-STOP. >> type your group #

Changing the Way the World Learns



Welcome to the "cdc" system, a service of Control Data Systems.

Remember to press SHIFT-STOP when you want to sign off.

Enter your password, then press NEXT to continue, or press LAB for additional options.

CyBIS is a trademark of Control Data Corporation Press HELP for information about signing on to the system.

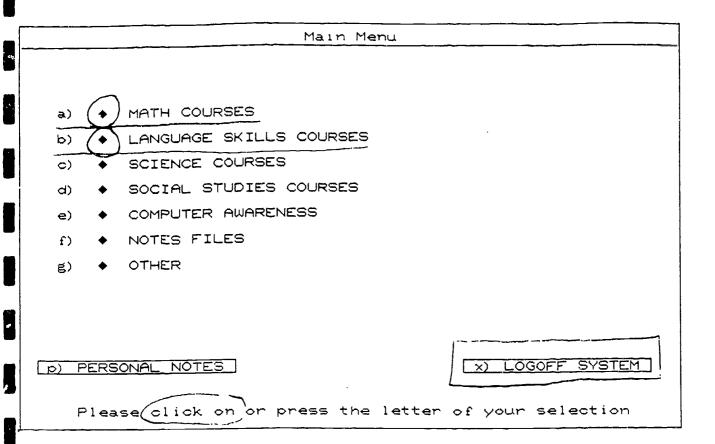
IMSATT

IMSATT

HOMER - Home Education Resource

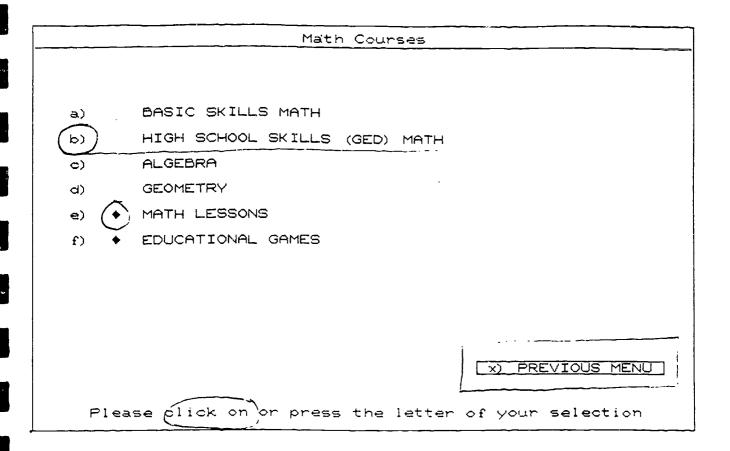


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Click on the screen or press NEXT to continue



- 1. This is the MAIN MENU. This is where you begin and this is where you will end or quit.
- 2. On Thursday night from 6-8:30 you will be logged on to this CYBIS curriculum. You will work for 1 hour and 15 minutes on Math (a), and 1 hour and 15 minutes on Language Skills (b).
- 3. This leaves 7 1/2 hours for you to do any of the other things listed at other times convenient to you (except Thursday night from 6-8:30!)
- 4. Let's pretend for the moment that we want to do the Math. We would click one time anywhere on the Math Courses line. This will take you to a SUB-MENU.





- 5. This is the SUB-MENU for the Math Courses. On Thursday night, you will choose selection B) GED Math.
- 6. By the way, if there is a diamond between the letter and the name of the menu selection, it means that there is another sub-menu available for that choice.



# CYBIS Learning Management Control Data Mathematics Series

Name terry***********************************	
Today's date February 9, 1993 Last date on February 9, 1993	

Welcome back!

Press NEXT to continue

- 7. If you have NEVER worked on this before, you will NOT get the above screen. However, if you have already begun work in this Math Course, you will more than likely get the above screen.
- 8. This screen gives you statistics of your use of the course. It tells you that this is the fourth session in the Math Course that you have taken. It also tells you today's date and the date that you last worked on this Math Course.



#### Basic Number Ideas

MODULE INDEX

MODULES YOU CAN WORK ON NOW:	
→ b. Exponents	
MASTERED MODULES YOU CAN REVIEW:	
a. Odd, Even, Prime	
THERE ARE 5 MODULES FOR YOU TO WORK ON LATER.	,

					at module).	2
				<del></del>	3. To review	
2.	To	work in	a different	course	(4. To read ar	nd write notes

- 9. This is a very important screen, it askes you what you want to do next.
- 10. If you want to work on Exponents (please note the arrow, this means you should choose this lesson first) just type the letter B or the letter the arrow is pointing to.
- 11. To quit and not do anything, type the number 2 which will take you back to either the sub-menu or the main menu.
- 12. You also have the option to read your personal notes or to write a pnote to someone. If you wanted to do that, you would press 4.



#### MODULE

Exponents ( Topic of Lesson

In this module you should learn about a special way of writing certain numbers in mathematics. This method is called using EXPONENTS and is one of the most common tools of mathematics used today.

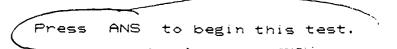
#### WHAT DO YOU WANT TO DO NOW?

- See the objectives
  Take the test
- (3.) See your study assignment
- 4. Choose another module

- 13. If you chose to do an exercise, you will get a sreen similar to the one above.
- 14. If you have never done this particular activity before, TAKE THE TEST (2). This is not the original placement test which you took when you first logged on. This is a test just on the topic of the lesson. You should take this test so the program can decide exactly what you have to learn about the topic.
- 15. If you do not pass the test (do not master it), then choose 3 from the menu to see your study assignment. However, if you do pass or master this test, you will be taken to the next topic and must again take the test because it is a new topic. You might get lucky and master that test too.



Your test begins with the next screen display.



Press BACK if you don't want to take the test now.

- 16. If you decided to take the test, you will get the above screen.
- 17. To begin the test press Command-A (Answer). You also use this command during the test.
- 18. If you do not want to take the test now, pess Command-B (Back).
- 19. If you want to quit the system, press Shift-Command-S (Shift-Stop) to take you back to the MAIN MENU.

DO NOT JUST TURN OFF YOUR COMPUTER, YOU MUST LOG OFF THE SYSTEM CORRECTLY FOR THE COMPUTER TO RECORD YOUR WORK STATISTICS.



1.  $x^4 =$ a)  $x^3$ b)  $x^5$ c)  $x^4$ d) xe) none of the above

### Select the best choice and then press ANS to score.

You may not select more than 1 answer choice for this question. If you want to change your answer, just press the letter of a different choice and your first checkmark will be removed. When you are satisfied with your answer, press ANS to record it.

menoge from Help

- 20. This is the first screen of the test. Take a few minutes to figure out the correct answer. In this instance the correct answer is b)  $x^5$  so I would press the B key and a check mark will appear next to year selection.
- 21. If you need help, press Command-H (Help) and the message above appear.

1. 
$$x \times x^4 =$$

a)  $x^3$ 

b)  $x^5$ 

c)  $x^4$ 

d)  $x$ 

e) none of the above

NEXT, to continue

- 22. One you have selected the correct answer, you must immediately press Command-A (Answer) for the computer to record your answer choice.
- 23. Press Next (Return) to go to the next question.
- 24. To quit, press Shif-Command-S (Shift-Stop). REMEMBER: You will not get credit for your work if you quit before you are finished!

#### MODULE

#### Exponents

In this module you should learn about a special way of writing certain numbers in mathematics. This method is called using EXPONENTS and is one of the most common tools of mathematics used today.

#### WHAT DO YOU WANT TO DO NOW?

- 1. See the objectives
- 3. See your study assignment

- 2. Take the test
  - (4.) Choose another module

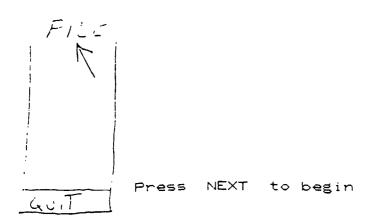
- 25. If you decided to quit, you will get a screen similar to the one above.
- 26. Choose number 4 to go back to the SUB or the MAIN MENU.



# Main Menu MATH COURSES a) LANGUAGE SKILLS COURSES **b**) SCIENCE COURSES **c**) SOCIAL STUDIES COURSES d) COMPUTER AWARENESS e) NOTES FILES £) OTHER g) p) PERSONAL NOTES OGOFF SYSTEM\_ Please click on or press the letter of your selection

- 27. At this point you will either choose something else to do from either the sub or main menu, or you will LOGOFF SYSTEM.
- 28. To logoff system, click once on selection x)LOGOFF SYSTEM.





- 29. This should be your final screen. But you are not done!
- 30. Before turning off your computer, go to the FILE Menu with your arrow and click and hold. Slide down the menu and choose QUIT.
- 31. You will then get a message asking you if you want to Hang up the Phone? Click the OK Button.
- 32. To shut down your computer, you must go to the SPECIAL MENU and choose SHUT DOWN. Now you can turn off your computer, modem and the lights and go to sleep!



# **Drexel University's Office of Computing Services**

Community Outreach Activities Korman Center 33rd and Chestnut Streets Philadelphia, PA 19104-2884

Terry Martell: 215/895-6753 Fax: 215/895-6777

January 8, 1993

Dear Power Learning Project Participant:

As you know, the deadline of January 4th has come and gone and unfortunately learners still cannot access CYBIS from their homes. Please review the information below which will help to expedite this process.

## The Steps Currently in Progress

- Bell Atlantic is currently setting up a phone access system to allow your learners to call the CYBIS System with a <u>special phone number</u> (please do not give students the 1-800 number).
- Please send the Mayor's Commission on Literacy the names, addresses, and phone numbers of your learners. This step must be done before any learners can use the system from home.
- Control Data Corp. will develop a configuration file which will help the access software run smoothly.
- Drexel will distribute <u>one disk copy</u> of the new access software to you for distribution to your learners. We will contact you by phone to arrange distribution as soon as we receive the new software.

# Additional Things You Can Do

- All of the instructors (using the <u>phiadmin</u> sign-on) have the ability to access a curriculum catalog found in the Catalog menu. This catalog gives you a chance to review curriculum which is currently not available to your learners.
- If you find curriculum that you think would be helpful to your learners and would like it to be included in the student lesson menu, make note of the lesson name and file name and give me a call. Control Data Corp. will add it to a special menu and your learners can access it at any time.



- Enclosed is a list of 53 curriculum items which have been identified for the student menu. These items consist of games, simulations, math strategies, writing skills curriculum, and life skills programs.
- To review these items just type the file name at the What Lesson > prompt of the main screen. Or you may review others from the catalog and ask to have them included. Please take some time to do this because it is a way for you to have input into the lessons your learners can use during their studies.

If you have any questions about the above information, please feel free to call me at the above number or Ben Burenstein at 895-1282.

Sincerely yours,

Terry Martell, Program Specialist





Office of Computing Services Drexel University Philadelphia, PA 19104-2884 215/895-1282

# Power Learning Project Teacher's Meeting Feb. 18, 1993



Mayor's Commission on Literacy 1500 Walnut St., 18th Floor Philadelphia, PA 19102 (215) 875-6602

- I. Introductions and overall comments on how the project is going
  - A. DOS-based courseware coming early next week.
  - B. How are the machines working?
- II. Login problems: \*70 in the login screen, autologin, waiting, others
- III. Seeing learners' results:
  - A. Data from entire group: type "phi0000\*" at "What lesson?" prompt, type 3 for Statistics, click on "Data," press <Return> for next, type a (for individual records), press <Return> for next (see illustration 1)
  - B. Data from individuals: type "philuse" at "What lesson?" prompt, put in name of group (phi0000X), put in an individual's name or just press **shift-next** (shift <Return>) to see everyone's individual records: (see illustrations 2 and 3)
  - C. To see learners currently on the system, type "philusers" at "What lesson?" prompt and then press <Return>. (see illustrations 4 and 5)
- IV. Communications using the bulletin board
  - A. Type "drexcdsi" for notes directly related to this project. <u>Please sign on and read these notes at least twice per week.</u> We will have information that will be useful to everyone. Feel free to post your feelings, and engage in dialog with others about what you are experiencing with Imsatt. (see illustrations 6-8)
  - B. Under your student sign-in there is a Notes for Literacy section. Check it out.
- V. Welfare Payments
- VI. More extensive feedback from users, student results, Next session at Drexel?



## Illustration 1 group records

Record usage for group phiadmin as of \$2/17/93: Sess. CPU Days <u>Last On</u> Ø.1 Ø.3 Ø1/28/93 18:49 Ø2/17/93 16:04 Ø. 1 anita 126 <u>39</u> 26.6 ben 11/17/92 Ø1/11/93 Ø2/11/93 Ø2/17/93 15:Ø9 Ø.Ø bob elmore a 10:49 Ø. 1 chris hopkins a Ø9 32 15 20 Ø.Ø Ø.4 dean christensen a 3 24 4.3 ø. i donna i donnac Ø2/Ø9/93 15:09 4 Ø.4 <u>ferris</u> Ø.2 Ø.5 2.3 Ø.7 18:54 13:59 13 9 Ø2/15/93 Ø1/19/93 i fred 5 3 gail Ø.2 82/16/93 Ø.3 2Ø:32 hong Ø.Ø Ø.7 11/38/92 14:13 <u>i ean</u> Ø.3 01/29/93 8 6.6 Ø jenny fer 5.Ø Ø2/17/93 Ø1/19/93 Ø2/15/93 13 13 13:23 10:03 2 <del>4</del> Ø.4 <u>ionn</u> Ø.1 Ø.6 lequyen Ø.9 18:26 ludo meg Ø2/15/93 Ø9:29 45 16.5 Ø.3 miriam hecksel a pat 02/16/93 20:33 2*Ø* Ø.4 1 Ø 3.4 pedro i pete Ø.3 Ø.2 Ø2/16/93 21:Ø3 7.3 13 10 sam 38 20:06 18 11.Ø Ø2/16/93 scot template 45 46.8 112 Ø.3 Ø2/17/93 15:14 terry i

Illustration 2: type =philuse= to get individual records

Edit Screen Access Keys

Mist Wester Bister Wittes Interest. Comm. HELF Edit

CYBIS will be down all day Sat. 2/28 & maybe AM of Sun. 2/21 notesfile =iportal= is now on this system if you're interested

What lesson? >> philuse



٠,

### Illustration 3: this is an individual student's record

Student: amiln

Group: phi88882

Course	Signon	Signon		Time
Taken	Date _	Time		<u> </u>
phigmaaa	2/11/93	5:15:37	pm	31.37 mins
phibsgaa	2/Ø4/93	6:59:Ø9	pm	20.78 mins
phigmaaa	2/84/93	6:46:16		12.45 mins
phibsmaa	2/04/93	6:44:53	maj	Ø.97 mins
phibsmaa	2/Ø4/93	6:Ø3:26	iom .	40.80 mins

Shown are the last 5 sessions

Press SHIFT-NEXT to go to next student
Press SHIFT-BACK to see previous student
Press BACK to select another student

Illustration 4: type =philusers= to see who is on

Mist Catalia Fister Mittes Interact. Comm. HELP CYBIS will be down all day Sat. 2/28 & maybe AM of Sun. 2/21

notesfile =iportal= is now on this system if you're interested

What lesson? > philusers

Illustration 5: Current users logged in on Philly accounts

NAME

NAME GROUP phiadmin ben mcintyrec\*\*\*\*ØØØØ2 phibsgaa turnerc\*\*\*\*\*#ØØØØ1 phibsmaa

GROUP



Illustration 6: type =drexcdsi= for bulletin board

# Mist Catalia Prater Mites Interact. Comm. HELP Enit

CYBIS will be down all day Sat. 2/20 & maybe AM of Sun. 2/21 notesfile =iportal= is now on this system if you're interested

What lesson? > philusers

## Illustration 7: bulletin board screen

_	# Date	Title	Resp	Drexel +	· + CDSI Notes
* *	1 2/17 2 3 4 5	Logon too hard Thanks System Down! Exponents Monitoring			
	*** Er	d of Notes ***	ļ	What note?	>
				Press I AR	for file policy
					·
				SHIFT-LAB SHIFT-DATA SHIFT-BACK	to write a note to see access list to exit
-					

Press HELP for information



# Illustration 8: type 1 for first BB message, etc

* *	# 1 2 3 4 5	Date 2/17	Title Logon too Thanks System Dou Exponents Monitoring	ın!	Resp	Drexel (	+ → CDSI	Notes
		*** E1	nd of Notes	***		What note?	> 1	
						Press LAB	for fil	le policy
		·				SHIFT-LAB SHIFT-DATA SHIFT-BACK		e a note access list

### Press HELP for information

### Illustration 9: a note

Drexel + + CDSI Notes Note #4 (Exponents)

Successful communication is very important to this project. 2/17/93 12:18 pm terry / phiadmin

To Instructors: In the GED Math Curriculum, exponents are covered under Basic Number Ideas. To write a number in exponential form it is explained to the student to use the CONTROL+ command. The Mac standard keyboard has no control key, and even if it did it wouldn't work anyway. The Mac equivalent for control+ is COMMAND-U. To write the number  $5^9$  you would first type the 5, then press command-u, and then type the 9. Thank you, Terry Martell



## IMSATT Meeting Thursday, February 18, 1993

#### CYBIS Commands and Files:

philuse: The philuse (Philadelphia use) command will give you specific usage

stats for each learner in your group.

philusers: This command is the preferred way of seeing the names of the

currently running users. There are two other ways to see who is

currently running on the system:

•The first is choosing *see who is on* from the Interactive Communications menu. Student users <u>do not</u> show on this list, only teachers and CDC users.

•The second is by typing in the group name and going through several menus to see who is logged on in that group. If a learner's name appears on this list it means that he/she is logged on, but not yet working on a lesson. Once the learner begins a lesson, his/her name disappears from these lists and it appears as if they aren't logged on.

Using the **philusers** command will show you the name of everyone who is logged-on the system regardless of their activity!

drexcdsi: Drexcdsi (Drexel and Control Data Systems Information) is

a special notes file set up specifically for our use. It works similar to pnotes, but is a public bulletin board for those interested in current news, new developments, and technical problems and their solutions. You can address a specific person in these notes, but everyone can read them and benefit from the information. You can also read a note sent by someone else, respond to it, and other readers will have access to

your response.

#### Other Information:

- •It has come to Drexel's attention that a learner who has begun working on a lesson cannot be contacted by you or anyone else by way of term-talk or monitor mode, until he/she comes out of the lesson and back to the menu. We have contacted CDC to see if this can be changed.
- •Learners can contact you, however, if <u>they</u> initiate a term-ask. If you receive a page from a student for a term-ask, choose *term-ask requests* from the Interactive Communications menu. Answering this page also gives you the ability to term-talk and monitor the asker.



# Term-Talk/Term-Ask/Monitoring

<u>Term-Talk</u> -- To talk to another student who is also logged-on.

- Press the **Command** key and then press T.
- At the arrow, type the word "talk" and press NEXT (Return).
- Type the sign-on name of the person you wish to talk to and press NEXT.
- Type the person's group name and press NEXT.
- •You will see a message telling you that:
  - -- the person is being paged
  - -- the person is not signed on
  - -- the person is not available
- or -- there is no such person or group.

If the person is not available, press Next to end of Term-Talk.

### If The Person Answers Your Call:

- Two arrows will appear at the bottom of the screen. One is yours, the other is his/hers.
- •Type one line of a message, pause a few minutes to allow your friend to read the message, and then press <u>LAB</u> (Command L) to continue the next line of your message (Each time you press LAB, your line disappears to you and your friend!)

## To Answer a Term-Talk Page

If someone wants to talk to you and is paging you:

- •Press the **Command** key and then press **T**.
- At the arrow, type the word "talk" and press NEXT (Command N).
- Two arrows will appear at the bottom of the screen. One is yours, the other is his/hers.
- •Type one line of a message, pause a few minutes to allow your friend to read the message, and then press LAB (Command L) to continue the next line of your message (Each time you press LAB, your line disappears to you and your friend!)
- •To end a Term-Talk, type good-bye to your friend and then press Shift-Stop (Shift/Command/S).



## Term-Talk/Term-Ask/Monitoring

<u>Term-Ask</u> -- If you are working and run into trouble, you can do a Term-Ask and page an instructor who is logged-on for help.

- Press the **Command** key and then press T.
- At the arrow, type the word "ask" and press NEXT (Command N).
- •You will see a message telling you that:
- --Someone has been notified: an instructor is available to answer your question and has been notified you called. You can continue your lesson while you wait for your instructor to contact you (it usually takes a few minutes for your instructor to reply).
- --Sorry, no one is available: an instructor is not currently available to answer your question. In some cases, you are given the option to write a note to your instructor.

## When the Instructor Contacts You

- •You will see a message like "terry/phiadmin/cdc also sees this display."
- •An arrow appears in the lower left corner of your display and any message the instructor sends to you will appear here.

## If You Want to Respond to the Instructor

- Press the **Command** key and press T (Command T).
- Another arrow will appear for you to talk.
- •If your message requires more than one line of typing, give your instructor time to read what you have typed and then press LAB (Command L) to clear the line and continue typing.
- •The LAB key is the ONLY key that allows you to continue typing. If you use something else, for instance, NEXT or Return, your arrow will disappear!!
- •If you do this by accident, start from the beginning by pressing Command T.



# Term-Talk/Term-Ask/Monitoring

# For the Instructor to Monitor your Display

Your instructor can monitor your display to see what you are doing, however when your instructor first contacts you, <u>you must</u>:

- •Press <u>Return</u> to exit from "talk" mode because you can't be monitored in that mode.
- •Replot your screen so that the instructor can see what you are doing. To replot your screen, press the **DATA** key (Command D).
- •After you have replotted, you can then resume "talk" mode if you wish. But, you must come out of "talk" mode if you want to change screens or move around the screen at all.
- •To end term-ask (monitor) mode, make sure you type good-bye or thanks to the instructor and then press **Shift-Stop** (Shift/Command/S).
- \*\*See list of student sign-on names and their pnote addresses.
- \*\*\*See list of instructor sign-on names and their pnote addresses.



## **Looking at Learner Records**

To look at your whole group records:

- 1. Log on under your "phiadmin" group.
- 2. When it asks, "What lesson? type "phi0000(groupnumber)" and press <Return> (today, lets look at our own: type "phi00009" and <R>)
- 3. Type 3 to choose "Statistics and Group Management Options" (no need for <R>)
- 4. Click on the "Data" button (or press command-d) (no need for <R>)
- 5. Press the Return key for Next
- 6. Type the letter "a" (do not press return)
- 7. When it gets to the next screen, press <R>

To leave this part, click on the back button 4 times.

To look at individual records:

- 1. Follow steps 1-2, above.
- 2. Type "2" to choose Roster operations (or just press <R>)
- 3. Type "a" to choose "See or Change Someone's signon"
- 4. Follow directions: type the first few letters of the signon name of the person whose records you want to examine.

To leave this part, click on the back button 4 times.



# How to log on using the Internet

Old Power Learning Project Signon: Compatibility

System type:	○ CYBIS	Other		0K
Duplex:	⊕ Full 🖎	○Half		Cancel
Baud rate:	○ 300	<b>1200</b>	<b>2400</b>	
	<b>4800</b>	<b>9600</b>		
Parity:	○ Even	Odd (	None	
Data bits:	○ 7 bits	⊕ 8 bits		
Port:				

Old Power Learning Project Signon: Network

⊠ Autodial	Phone number:		
Tone	9289800		
O Pulse Netu  Netu  Network Prompt		ork Type: No Other	OK
		Macintosh Response	Cancel
		^#^m^#^m	
^*^*^*below:		2158756602^m^#^#^#^#	
^*^*below:		555555^m^*^*	
^*^*below:		6.15^m	
^*^***ENTER.		1^m	
^*^*^following:		^*1 ^m	



# NewOld Power Learning Project Signon: Compatibility

System type:	○ CABI2	Other		0K
Duplex:	<b>●</b> Full	○ наМ		Cancel
Baud rate:	○ 300	<b>01200</b>	<b>② 2400</b>	
	<b>4800</b>	<b>9600</b>		
Parity:	Even	Odd (	○ None	
Data bits:	7 bits	○8 bits		
Port:	Que co			

# NewPower Learning Project Signon: Network

⊠ Autodial	Phone number:		
<ul><li>Tone</li></ul>	8951600		
○ Pulse	Network Type:  © Direct Other		0K Cancel
Network Promp	t	Macintosh Response	Cancel
······································		^#^m^#^m	
SELECTION ?		telnet^m	
RETURN		^m^m	
Telnet>		dunx1^m	
login:		cybis^m	
Password:		tyemed1^m	



If you or the learner are using the auto-signon procedure, you will need to go into the "Signon..." box and enter the information. This would be the same information vou had to enter when using the old software.

Signon name: ben

Group:

phiadmin

Password:

\*\*\*\*\*

The 800 Number Method (no longer available)-- \$12/hr









Control Data Corporation Big Computer

The Intelligate Method: donated, free but slow









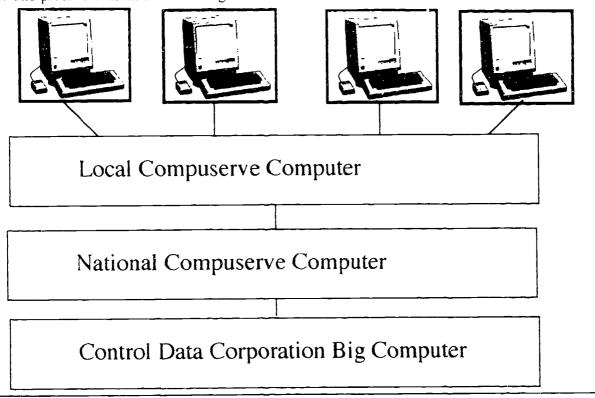
Local Bell Computer

Little Specialized Bell Computer

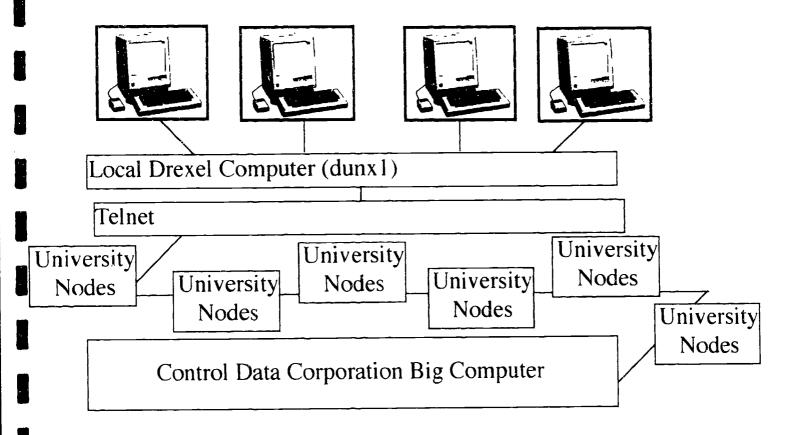
Control Data Corporation Big Computer



The Compuserve Method: dial in to 563-1305, when it asks, "What System" type homer and press return, then manual log on. %5/hr.



The Internet Method: dials in to 895-1600, then automatically logs on. \$5/month/user



### HOW TO EXEMPT STUDENTS FROM A LESSON OR COURSE

In order to exempt learners from courses if there is a technical problem (they pass the test but the program refuses o pass them to the next exercise), log on, go through =philuse= to find out the names of the lessons they are in, then, from the "What lesson? >" screen, type the name of the group. (Phimasaa is a math lesson)

# Mass Catalia Pister Wites Interact. Comm. | HELP | Erit

Please read the 3/12 note in =announce= re. system schedules

What lesson? >> phi00009

Now, Type 1.

# GROUP EDITOR (Main Menu)

(no authors)

Group : "phimasaa"

9 people 3% full

Choose an option (or press HELP): >

- 1 SEE or change someone's signon
- 2 ROSTER operations (NEXT) (list, add, delete, messages, who's running)
- 3 STATISTICS and Group Management Options
- 4 CURRICULUM design
- 5 SPECIAL options

Press BACK to leave Press LAB for space usage information Press DATA for group description Press SHIFT-NEXT for people currently running



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Type the person's sign-on name

See or Change Signon

Enter person's name (first few letters will do)

>> ben

Press SHIFT-NEXT for first person in roster

BACK for menu

Type 4

Signon Information

Ben \*\*\*\*\*\*ØØØØ9" (student)

Ø2/17/93 Creation date:

NONE Expiration date:

Last signed on:  $\emptyset 2/17/93$  at 15:28, site  $\emptyset$ -9

Ø.Ø746 Total hours =

XXXXXXXXX # attempts: Ø Signon password:

Last changed: Ø2/17/93

#### Choose an option:

- change PASSWORD
- 2 change spelling of NAME
- 3 change EXPIRATION DATE
- curriculum STATUS (lessons completed, etc.)
- leave a MESSAGE
- ROUTING options
- SPECIAL options 7

Press SHIFT-HELP for: delete, turn-off

Press SHIFT-NEXT for next person in roster SHIFT-BACK for previous person

HELP for help



TypeB

Student: ben\*\*\*\*\*\*\*\*\*00009

Module: 1

Current Lesson: Lesson 9

- a See lessons completed and scores
- b Change lessons completed and scores
- c See list of modules

### Select the action you wish to take.

Student: Ben 1\*\*\*\*\*\*\*00009

```
Score Status
                                                                   Done
  Lesson
  Lesson 1
  Lesson 2
  Lesson 3
  Lesson 4
  Lesson 5
  Lesson 6
  Lesson 7
                                                                                                  Bei
  Lesson 8
  Lesson 9
"a" to change "done" on a lesson "b" to change score on a lesson "c" to clear status for a lesson "+" or "shift +" to advance "-" or "shift -" to back-up
                                                                           "do<u>ne" code:</u>
                                                                           * = complete
                                                                           - = incomplete
                                                                              = not tried
                                                                           + = no end
                                                                       Δ = saved status
Press BACK for other options.
```

# Chronology of PLATO/CYBIS as of December 1993

Extensions of research on PLASMA display devices by Don Mitzer and Gene Slottom at the University of Illinois' Coordinated Sciences Laboratory (CSL) in the late 1950's and early 60's resulted in the definition of the system: Programmed Logic for Automatic Teaching Operations (PLATO). The first operation of the PLATO concept was with two terminals using ILLIAC I, a non-commercial computer with a Williams vacuum tube memory. Control Data Corp. control data Corp. control at CORD 1604 as the first commercial and dedicated—to—PLATO computer. Immoty terminals were placed in operation, first under the Computer for Automatic Teaching Operations (CATO), a FORTRAN based authoring language. Terminal records sufficed as student records until the addition of a large disk drive that held student records that were independent of the terminal. After that time, simultaneous and different courses could be executed. The TUTOR authoring system subsequently replaced CATO. PLATO moved to the CDC 6669 series computers with TUTOR, and runs on the CYBER 7X6, 8X6 and 9X8 series computers, continuing to use the TUTOR and Micro—TUTOR authoring language.

Funding for initial development was from Control Data Corporation, Advanced Research Projects Agency of the Department Of Detense (ARPA), National Science Foundation (NSF), US Office of Education (USDE), Uffice of Naval Research (ONR), University of Illinois (Uofl), and The State of Illinois.

PLATO was first offered as a commercial product in the early 1978's by CDC. CDC and the Uoff agreed to develop the system separately in the end 1978's. Uoff implemented a large scale project in teaching at the Uoff and in the State of Illinois. The Uoff later moved to a satellite-based communications system and renamed their system "NOVA NET," during the 1998's. It remains TUTOR based.

1972 The Air Furte School of Health Care Sciences began a PLATO project, they moved to entire classes taught by PLATO, served by the Uofi mainframe.

1976 Commercial PLATO became available from CDC at \$1,130/month/terminal, including the ferminal, and communications, will quantity discounts for 8, 16, 32... terminals.

GEA estimated that government spending for PLATO would exceed \$10,995,555 a year by 1984 at the rate of use and development during 1981.

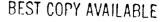
GEA's Bob Dove called a meeting of PLATO users which was hosted by the Air Training Command, Randolph AFH 2-3 March 81. Discussions began for government owned system(s).

1982 First plans laid for government mused PLATO services with government owned communications.

TRADOC Reg 18 5 identified DCSRM-IMD as responsible for chairing the Joint Committee on Computer-Based Instruction (JCCBI).

1983 AF SHCS taught 8,886 students per year, 3,666 course hours.

1983 JECSI members wrote a Productivity Improvement Funding (PIF) project.
The Office of the Secretary of Defense approved \$14,366,666 in 1984 for FY84-







1984 ICRIS became operational.

1985 Department of the Army approved the Electronic Information Delivery System (EIDS) as the system for presenting off-line CBI. Army announced plans to field 40,000 FIDS for training in schools and in the field.

1986 The rmy's Training and Doctrine Command (TRADUC) ordered the use of EIDS for Army Computer Based Training requirements and a consequent phase—not of PLATD for training by not authorizing further developments of courseware. Use of PLATD was to continue to support the TRADUC education program through the Army Continuing Education System (ACFS). The JCCBI was transferred to the Deputy Chief of Staff for Training for operational control.

1986 The chargeback to users was #450, per terminal per sonth. Long haul communications for JCBIS changed to Telenet.

1988 Army Gen Max Thurmond endorsed the use of PLATO for civilian training instead of TDY and off-post training when possible.

1989 Army TRADOC did not prioritize EIDS high enough to ensure funding, ARSTAFF did not fund the plan for fielding EIDG. The number of EIDS was limited to a rumored 11,860 with 5,000 of those purchased by the National Guard). The EIDS were placed primarily in the training base; none were made available for the field. (No plans exist for recovery or reinstatement of the project.)

1989 Control Data Corporation sold the PLATS name, copies of the remedial and academic courseware, and the right to remedial PLATS, to William Roach & Associates, which subsequently became The Roach Organization (TRO). They continue to offer PLATS as a LAN based system using Micro-Tutor.

1989 JCBIS communications contract changed to SMS Data Products Group (SMS).

1989. The moritorium on use of JEBIS for training removed by Army TRADOC's MG Downing. The training base could then use the JCBIS if they chose to do so.

1996. The largest Army users terminate their use of JCBIS for training as a result of the decision for the moritorium issued in 1986.

1991 The FY91 chargeback was \$385 per month per terminal.

1991 Find of the use of the PLATO name for the JUBIS, changed to CYBIS (CYBER-Based Instructional System). "PLATO" then referred only to the TRO system.

1991 JUUBI (CYBIS based) delivered from the JCBIS over 699,996 hours of instruction at a cost of \$6.96 per student hour during FY91. About half the use was military, half was for Federal Aviation Agency (FAA) training.

1992 CYBIS updated by Control Data Systems, Inc. (New Hame, CDSI) and the University of Maryland cooperative project. New coursemane standards for



color, frame composition, and sequencing. The system became more "friendly."

1992 LAN based CYBIS developed under a cooperative project between TRADOC ACES and CDSI. It was demonstrated at Ft Eustis. The LAN approach preserves the advantages of the networks pr-line communications for E-Hall at three different levels for trainers and educators, version control of the Official master copy of courseware, control repository and transfer of student records for sobile student populations, transparent use of the network when courseware is not resident on the LAN, and sonitoring of all operations for cost control and efficiency of personnel use for CBI delivery.

1992 Bust of instruction delivered by the JCCD1 was \$4.79 per student hour for FY92. Approximately 672,586 hours were delivered, a 13% increase over FY91, again, the use was about half-military, half-FAA.

1992 USD PIF project to implement the LAN for JCCDI member users with 19 or more terminals was written, approved for funding, and subsequently disfunded.

1993 All non-AA JCBIS computer services moved to Ft Leavenworth. Communications using FIS 7000 and locally funded LAN-based CYBIS systems for all non-FAA JCBIS became operational after a five month down-time transition period. Therefore, a delivery cost-per-student hour will not be computed for FY93.

1993 Restoration of service under the Ail portion of FTS 2999 was very quick with few of the problems that had been experienced with all previous vendors of the contracted tolecommunications services.

1993 End of the cooperative project between CDSI and the University of Maryland. Development work on CYBIS will continue at CDSI in Minnesota.

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# ATTACHMENT 4: CONTRACTS

Provider Agencies Software Support Third Party Evaluator On-Line Services



NOV 62 192 84136PM CAMPUS COMPUTER

# CAMPUS COMPUTER RENTALS, INC.

21-D OLYMPIA AVE • WOBURN, MA 01801 • (617) 935-4900 • FAX: (617) 935-5134

Mon, Nov 2, 1992

Donna Cooper Executive Director Mayor's Commission on Literacy Philadelphia, PA 215-875-6602 fax: 215-875-6586

Dear Donna,

Campus Computers will be able to provide your program with the 104 Macintosh computer systems that you need at the lowest possible price!

We can make them available to you on the following terms:

Availability Guaranteed: We are able to deliver the s, stems on December 1, 1992.

Equipment: 104 Macintosh Plus Systems with 800K external drives, 1 meg RAM, Keyboard, Mouse. Some units will have cosmetic defects or blemishes—this allows us to keep average cost down. All units will be very clean and thoroughly tested.

Warrantee: 1 Year from date of purchase on parts and labor.

Instant Repair: In order to keep your users on-line, we will provide your office with one "swap" MacPlus and 800K drive and three "swap" mice and keyboards. This will enable you to exchange a users malfunctioning unit instantly and ensure minimum down time. To the end user, repair of broken equipment will occur "instantly." "Swap" units will remain the property of Campus Computers.

24 Hour Service Guaranteed: Broken units shipped to Campus Computers will be repaired or replaced within one business day of our receipt. Repaired units will be returned to you via UPS ground (typically 2 business days shipping time). If we fail to turn a repair around in one business day, we will double the remaining warrantee on that unit for FREE.

Shipping: We will deliver the units to each of your 8 sights around Philadelphia, via padded van, for \$10.00 per unit. If your program requires that the units be distributed in boxes, we can provide custom padded cartons (which you will find superior to Apple's original) for \$15 per box/pad set.

Cost: \$390 per unit excluding cartons and delivery.

Terms: Cash in Advance. In order to guarantee that the Macs are available by the date above we must receive payment in full by Thursday, November 6th. If you wish you may send the invoice via the Federal Express. Our corporate account number is 138414396.

Sincerely.

Ern Zima Eric Zimmerman

# Campus Computer Rentals, Inc. INVOICE

Invoice Number: 2961

From: Campus Computer Rentals, Inc. 21-D Olympia Ave Woburn, MA 01801 1-800-447-1542 fax: 617-935-5134

To:
Donna Cooper
Executive Director
Mayor's Commission on Literacy
1500 Walnut Street-18th Floor
Philadelphia, PA 19102
215-875-6602
fax: 215-735-6586

Customer Purchase Order Number:

Invoice Date: November 2, 1992

Qty.	Product Description	Unit Price	Amount
104	Apple Macintosh Plus Computer	\$350.00	\$36,400.00
104	External Floppy Disk Drive	\$40.00	\$4,160.00
104	Shipping and Handling	\$10.00	\$1,040.00
104	Padded Multi-Use Cartons	\$15.00	\$1,560.00
		Total	\$43,160.00

Please Make Checks Payable to Campus Computer Rentals, Inc.
Please Return Top Copy With Your Payment





Office of Computing Services Drexel University Philadelphia, PA 19104 January 13, 1993

Ms. Donna Cooper Executive Director Mayor's Commission on Literacy in Philadelphia Philadelphia, PA 19102

### Dear Ms. Cooper:

This is to formalize the arrangement that the Mayor's Commission has with Drexel University to provide technical support for the Power Learning Project. Drexel's responsibilities include the following:

- a. research and determine proper hardware to purchase and make a recommendation for type and vendor
- b. attend all initial planning meetings
- c. serve as a liaison with CDC and Imsatt to establish all connections and secure access to all resources promised us under the contract.
- d. review and select 300 hours of software which can be recommended for use by teachers
- e. train teachers in logging on
- f. discuss with them how they will integrate this into their existing, total instructional program
- g. conduct monthly meetings with all providers involved and review problems, successes and highlight both good lessons and exemplary integration strategies being used.
- i. develop content evaluation instruments
- j. administer instruments and collect data--summarize the data so that it can be given to the external evaluator for analysis and inclusion in the final report.
- j. make site visits when necessary to solve problems or do training
- k. provide on-line and phone support for users



Drexel will receive compensation for these responsibilities according to the budget attached. The responsibilities of the coordinator (Dr. Jan Biros) will not be charged to the budget, but \$5000 will be reported as a contribution to the project. The terms of this agreement will be in effect until June 30, 1993. If the project continues or additional work is needed, a new arrangement will be agreed upon.

If this arrangement is agreeable to you please sign below. Thank you very much for your interest in Drexel University and we look forward to working with you on this exciting project.

Sincerely,

Jan Biros

Representatives of the Mayor's Commission

Ms. Donna Cooper, Executive Director

Representatives for Drexel University

Dr. Janice Biros, Manager Computing Resource Group

Dr. i Minas, Director Office of Computing Services

Dr. Eli Fromm, Vice Provost for Research

## imsatt budget

Budget for Drexel Technical Support Power Learning Program Salary	
Review and Categorizing Software 4 weeks/ \$1052/wk	\$4,208
Plan and Conduct 10 monthly workshops for literacy centers 3 hours/\$60/hr	\$1,800
Fringe Benefits @ 24%	\$1,442
Lab use for above workshop: \$100/workshop	\$1,000
Coordination of program 56 hours @ \$75/hour 20 hours for meetings 3 hours per month-12 months	\$4,200
Printing/mailing/ duplication	\$1,000
Evaluation	\$3,000
Indirect @ 15%	\$2,497
Total Program Cost	\$19,147



# TESD FAX

To:

Jean Sprigge and Donna Cooper

Mayor's Commission on Literacy

FAX #: 215-735-6586

From:

Jay Sivin-Kachala

Interactive Educational Systems Design, Inc.

FAX #: 515-225-9530

Date: January 22, 1995

Re:

IESD Impact Analysis Evaluation Plan

No. of Pages: 5 (not including this cover sheet)

Comments:

Dear Jean and Donna:

Enclosed is the revised Impact Evaluation Plan. It is complete except for Page 4, Paragraph 2 -- I have not received final confirmation as to the number of adult literacy programs providing control groups.

Please review the document and then call me today to finalize. I welcome any suggestions you might have for final revisions.

Sincerely yours,

Jay



310 W 106 Street NY • NY 10025 212 • 865 • 3398

IESD IMPACT AMALYSIS EVALUATION PLAN:

THE MAYOR & COMMISSION ON LITERACY DISTANCE LEARNING INITIATIVE

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January 20, 1993

This document details ISSD's plan for the Impact Analysis Evaluation of a pilot distance learning initiative that tests the effectiveness of home-based, interactive computerassieted instruction (FAI) for adult learners. This project is being coordinated by the Philadelphia Mayor's Community on Literacy on behalf of eight non-profit, community-based adult literacy education programs.

This proposal is divided into three parts:

- \* Comis of the Evaluation
- \* Eveluation Plain
- \* Estimate of Cost

#### Goals of the Evaluation

The goals of the evaluation will be:

- \* To determine whether home-based CAI, coupled with classroom learning, results in accelerated rates of achievement in reading, writing, and mathematics skills.
- \* To relate home-based CAI, coupled with classroom learning, to specific areas of achievement -- as perceived by teachers and students.
- \* To determine whether home-based CAI, coupled with classroom learning, results in higher student motivation and more positive attitudes toward learning.
- \* To determine whether home-based CAI, coupled with classroom learning, results in increased student self-detect.

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#### Evaluation Plan

In this section, we describe the evaluation plan in detail.

### Preliminary Data Collection

In mid December 1992, we met with representatives of the Mayor's Commission on Literacy and the participating adult literacy education programs. The purposes of this meeting were:

- \* To learn as much as possible about the differences among the programs involved in the project.
- \* To present evaluation issues and options, and to gain the input of the participants.

As a follow-up to this meeting, representatives of the eight participating adult literacy education programs were asked to provide detailed information about their programs in written form. Their responses were analyzed by IESD.

#### Testing Instruments

IESD identified, analyzed, and selected testing instruments to meet the goals of the proposed evaluation.

Achievement. To assess achievement in reading and mathematics, the Test of Adult Basic Education (TABE) Survey Form, Locator Test and Level E, M, or D (CTB MacMillan McGraw-Hill) will be administered as a pre- and post-test.

To assess achievement in writing, essay tests will be administered as a pre- and post-test, using topics provided by the GED Testing Service. Each test will consist of two essays, which will be scored by an independent agency trained in the holistic scoring technique used by the GED Testing Service.

In addition to these formal assessment tools, IESD will construct survey instruments that will capture teacher and student perceptions of achievement over time.

\* Teachers will periodically identify specific concepts and skills that were covered in class and indicate the percentage of the class achieving mastery. For broad skills for which gradual improvement over time is the goal (e.g., reading comprehension; writing) teachers will assign each student an improvement rating,



# IESD Impact Analysis Evaluation Plan: ...Distance Learning Initiative

Page 3

using a 5-point Likert scale. Teachers will also explain their ratings, citing specific examples of student improvement.

\* Students will periodically assign themselves improvement ratings for reading, writing, and mathematics, using a 3-point Likert scale, and will indicate what they think are the causes of their improvement (e.g., adult education classes, using the computer at home, other factors). Students will also be asked to identify their personal learning goals, to assign themselves improvement ratings for these goals (using the same 3-point Likert scale), and to indicate what they think are the causes of their improvement.

Motivation and Positive Attitudes Toward Learning.
Retention rate will serve as a measure of student motivation to build literacy skills.

In addition, a modified version of the Survey of Study Habits and Attitudes, Form C (The Psychological Corporation) will be administered as a pre- and post-test to assess changes in attitudes toward learning.

Self-esteem. To assess changes in student self-esteem, the Culture-Free Self-Esteem Inventories for Children and Adults, Form AD (Pro-Ed) will be administered as a pre- and post-test.

### Additional Data Collection

The Commission staff monitor will provide IESD with monthly time-on-task and lesson mastery data for all work completed by students on the home computers.

### Evaluation Design

As indicated above, the evaluation includes a pre-test (January 1993) and a post-test (June 1993) for:

- Achievement in reading, writing, and mathematics
- \* Attitudes toward learning

<sup>1.</sup> Adapted from a method described in D. D'Amico-Samuels, Perapectives on Assessment from the New York City Adult Literacy Initiative: A Critical Issues Paper (New York: Literacy Assistance Center, November 1991).

### \* Self-esteem

Normative data exists for the TABE, the Survey of Study Habits and Attitudes, and the Culture-Free Self-Esteem Inventories for Children and Adults to allow for comparisons of the students receiving the experimental treatment with other students.

In addition, ?? of the eight adult literacy education programs will provide control groups. IESD will oversee the selection of control groups so that they match the experimental groups as closely as possible in terms of current achievement level. For the participating students attending these programs, the following research questions will be asked:

- \* Does the experimental treatment group demonstrate significantly greater gains in reading, writing, and mathematics skills than the control group?
- \* Is the retention rate of the experimental treatment group significantly higher than that of the control group?
- \* Does the experimental treatment group demonstrate significantly greater improvement in attitudes toward learning than the control group?
- \* Does the experimental treatment group demonstrate significantly greater improvement in self-esteem than the control group?

IESD will conduct statistical analyses to answer these research questions.

Finally, the data collected from the teacher and student survey instruments will be analyzed to identify specific areas of achievement related to the instructional objectives of each adult literacy education program and to the personal learning goals of students. As part of this analysis, we will compare the data dollected from the teachers and students to monthly time-on-task and lesson mastery data for all work completed by students on the home computers. Process evaluation data provided by Drexel University will also be considered in this analysis. We will look for patterns of achievement related to the use of the home computers.

TESD Impact Analysis Evaluation Plan: ...Distance Learning Initiative

Page 5

Ongoing Communication with Drexel University Process Evaluators

IESD will maintain ongoing contact with the Drexel evaluators to keep abreast of program changes and software or hardware problems that may impact on the outcome of this initiative.

### Analysis Report

We will prepare a written analysis report presenting and explaining our findings. This will be submitted to the Commission in July 1993.

### Debriefing the Commission Staff

After submitting our report, IBSD analysts will be available to answer any questions the Commission staff might have. If desired, a formal debriefing session can be arranged.

#### Estimate of Cost

For consulting services as impact Analysis Evaluator for a pilot distance learning initiative that tests the effectiveness of home-based, interactive computer-assisted instruction (CAI) for adult learners.

\$15,000.00

The above estimate does not include the cost of any thirdparty testing instruments available for use on a fee basis.

It is assumed that the written evaluation report will focus on the presentation and explanation of IESD's analysis and findings. While it may refer to data provided by Drexel University's process evaluators, the IESD report will not summarize Drexel's findings.



## The Power Learning Program

a Distance Learning Pilot for Adult Literacy Students in Philadelphia

Bell Atlantic has made a \$100,000 donation to the Mayor's Commission on Literacy in Philadelphia to support a distance learning pilot project in Philadelphia. Drexel University's Office of Computing Services has been contracted with to provide training and technical assistance to all the participating agencies and providers. The purpose of the project will be to give people access to educational software in their homes over the phone lines and determine how they make use of it and how it affects the progress they make in the literacy program they are in. Bell Atlantic is interested in eventually marketing this type of software to its regular customers, but would like to test the market and the effectiveness of the program with a small pilot group. The Mayor's Commission on Literacy has also received an addition \$100,000 grant from the National Institute on Literacy to evaluate and support the program.

Eight literacy providers in Philadelphia have been invited to participate and involve 12 of their students in the project. The eight literacy centers are the Lutheran Settlement House, Aspira, the Community Women's Educational Program, Temple University, the Center for Literacy, the Indochinese Cultural Center, the YMCA, and Drexel University. These centers will identify 12 students who are interested and highly motivate to participate. Each student will be given a Macintosh Plus computer and modem to use in his/her home for the duration of the project. The computer will ultimately be the property of the literacy providers. Students will log on to Plato based software residing on a mainframe in Minneapolis and will do so over the phone lines at the cost of a local phone call. These students, who are involved in literacy programs in a participating center, will access to this software to supplement their regular literacy instruction. This at home learning will help those with transportation or childcare problems to augment their studies easily right at home. In addition, we will be investigating how other members of the family use the computer materials and how the presence of this technology at home affects parent/child interaction, parent interest in children's school work and other such family literacy issues.

Drexel has been involved in hardware selection and acquisition and will be responsible for aiding literacy centers in making effective use of the technology and helping their students participate fully in the program. This will consist of providing monthly "training" programs for the teachers involved and will involve reviewing the software to make recommendations for use. Drexel will also provide phone support and site visits when necessary.

Distance learning is a concept which has been around for some time, but is only now becoming more practical. This project is significant as it is the only one of its kind in the country and is attempting to test the practicality of distance learning with a non-traditional, disadvantaged population.



### Content Evaluation of Power Learning Project

Drexel has been asked to collect information regarding some of the subjective, affective aspects of the students' and teachers' experiences in the Power Learning Project. Drexel has designed a plan and instruments to collect this information and will do so and pass it on to the external evaluator for inclusion and analysis in the final reports regarding the project. The goals of this content related evaluation will be to determine:

- a. how often/how long learners are using the on-line software
- b. what difficulties the learners have using the software or hardware
- c. how effective the tutor/teacher--learner relationship is in this type of project
- d. what other family members are using the system and for how long t
- e. what changes may have taken place in the household since the introduction to the computer--less TV, more parent/child interaction and discussion, increased interest in learning, homework etc.
- f. how long teachers are spending supporting student work in the project
- g. how effective teachers feel the software is in supplementing what they are doing in class

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## **Student Reporting**

Learners will be asked to keep a journal which would be provided to them. They would be asked to write an entry into the journal as often as they would like with a minimum of once per week (if they wanted to write after each on-line session, they would be able to).

The journal pages would contain the following areas for student reporting.

	Date		
How long did you work on the computer?	hrs.		
What did you work on? (check which one)	On-line		
	Word Processing		
Did you work alone on your work	Yes No		
Did you work with someone else	Yes No		
Did you have trouble at all with your work?	Yes No		
Did you have trouble getting the computer to w	ork properly?		
	Yes No		
Did you have trouble getting the software to wo	rk properly?		
	Yes No		
Did you have trouble understanding the assign	ment on the computer?		
	Yes No		
Did you enjoy your work session today?			
	Yes No		
Why or why not?			
Did you try to get help?	Yes No		
What kind of help did you try?	On-LineTeacher		
Were you successful?	Yes No		
Comments:			



Teac	her	Report
------	-----	--------

This report would be filled out by literacy instruc	ctors once	per week minimum.
	Date	<del></del>
How long did you work on the IMSATT Project t	his week?	hrs.
Helping Students		hours
Managing records		hours
Reviewing and assigning lessons		hours
Did you have trouble at all with your work?	Yes	No
Did you have trouble getting the hardware to wor	rk properly	y?
	Yes	No
Did you have trouble getting the software to wor	k properly	?
	Yes	No
What did you like about the software lessons you	ı worked v	with today?
What did you dislike about the software lessons  Do the lessons enhance your students' experience Why or why not?		
Do your students use the computer more for on (word processing)?  Comments:		ns or for off-line lessons ne Off-Line



## Computer Competency Review

Each student will be reviewed upon the completion of the program to determine the ability to perform each of the computer skills listed below:

### The student is able to:

- 1. open an application
- 2. open a file
- 3. close an application
- 4. save a file
- 5. distinguish between Save and Save As
- 6. copy text
- 7. move text
- 8. insert text
- 9. center text
- 10. set margins
- 11. change font attributes in existing text
- 12. print a document
- 13. format a disk
- 14. power down machine
- 15. perform a spelling check
- 16. change line spacing
- 17. close text after insertion
- 18. add/insert pages using pagebreak
- 19. copy files onto disk
- 20. erase files



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CITY OF PHILADELPHIA

Mayor's Commilsion on Literacy

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THE PSYCHOLOGICAL CORPORATION

MAYOR'S COMMISSION ON LITERACY 1500 Walnut Street, 18th Floor Philadelphia, Pa. 19102 875-6602 FAX No. 735-6586

EDWARD G. RENDELL Mayor

DONNA COOPER Executive Director

December 8, 1992

Ms. Colleen O'Connell Director of Education Community Women's Education Project 2801 Frankford Avenue Philadelphia, PA 19134-4096

### Dear Colleen:

The Mayor's Commission on Literacy is pleased to be working in partnership with you to pilot the Power Learning Project in Philadelphia. Because this is a new nationally supported initiative, we all have a tremendous opportunity to impact the development of literacy policy and advance the means of literacy instruction by the outcomes of this project. I am sure that you are as hopeful and committed to a successful and informative experience as we are.

The Commission will be granting your agency \$7,000 for your participation in this pilot project. An initial installment of \$5,000 will be sent to you once you sign and return this letter of agreement. An additional \$1,500 will be sent to you in April and the final \$500 in August.

Over the last several months we have identified very clear terms and condition for your Agency's participation in this project. They are:

- to recruit 12 learners who agree to participate in the pilot project for at least six months; these learners will have reading levels between the 5th and 8th grades; each learner must have a phone in his/her house in order to participate in the project CWEP who focusing on writing levels.
- \* to provide classroom based instruction for each learner for the full six months they are in the project; the instructor will prepare an individualized curriculum incorporated with the computer assisted instruction which will require the learner to access the system at least six hours a week for the entire pilot program; instructors are expected to include the use of E-mail and/or the bulletin board in their assignments



- \* to enter into a contract between your site and each learner to demonstrate your commitments to them and confirm their commitment to the pilot project; this signed contract will be part of the materials included for review by the Evaluators.
- \* to maintain an instructor's log which details the lessons, reactions, impact, problems and opportunities of the computer system; learners will also be asked to keep logs and forms which will be provided for them by the sites
- to participate in a project-wide pre and post testing process administered by the Commission; each site will also be expected to participate fully in the evaluation programs as designed by Drexel University and the external
- to inform learners who are receiving public assistance that they must signup for a special needs allowance to cover the \$20.00 a month link-up charge; these checks will be restricted signature with the -Commission; those learners who are not on public assistance will have their \$20.00 per month fee paid by the site; no charges for computer access may be passed onto the learner
- \* to ensure that your project coordinator attends each of the monthly development meetings; to assure that each learner will attend the orientation and the three and six month up-dates/celebrations
- to train learners to use the computers and access the system in December,
   1992, and to bring all learners on-line in their homes no later than January
   4, 1993; every effort will be made to have the learners begin the program
- to indemnify, defend and hold harmless the City from and against any and all losses, costs (including litigation costs and counsel fees), claims, suits, actions, damages, liability and expenses, including, but not limited to, those in connection with loss of life, bodily and personal injury damage to property occasioned wholly or in part by agency acts or omissions or the acts or omissions of agency agents, subconsultants, employees, or servants pursuant to this agreement.

Although not a condition of this grant, all participating agencies have nonetheless agreed to have a staff person available one night a week or on Sunday to be on-line for two hours to answer questions and interact with learners at a set time.

In addition to the \$7,000, the Commission will give each site 12 computers to be used by the learners in their homes for the duration of the pilot project. A modem will accompany each computer; one additional modem will be given to each site to facilitate on-site log-on. The computers have a 12 month guarantee; however, any



insurance costs or maintenance costs deemed to be outside the scope of the aforesaid guarantee shall be borne by your agency. All computers and moderns become the property of the sites at the end of the project. Modems have a seven year warranty.

The Commission will bill your agency in July, 1993 for on-line costs of \$20 per month for each learner not covered by public assistance.

Your signature on this letter confirms your agreement with all the aforementioned terms and conditions.

Director

Community Women's
Education Project

12/16/92 Date

xecutive Director

Mayor's Commission on Literacy



### Project Description (IMSATT)

The goal of this project is to provide literacy/basic skills Courseware at home for adult literacy students enrolled in eight of Philadelphia literacy programs. The project will enable learners to stay at home and to access instructional materials via their phone lines on their home computers. The project will examine the impact of such advanced technology in accelerating the pace of learning and boosting the motivation of the learner.

From among the eight Philadelphia literacy agencies a pool of one hundred learners, who are currently enrolled in these literacy programs and who are reading between the 5th and 7th grade levels, will be selected to participate in the Power Learning Project. Each learner will be lent a computer with a modem to use in their homes. Through the modem and phone lines they will access the IMSATT Courseware housed on IMSATT's CDC mainframe computers. Phone line access to the system is facilitated by Bell Atlantic Corporation whereby participants are guaranteed access for the cost of a local phone call. The learner will return the computer to their literacy agency at the end of their participation in the program so that another can take part in the program.

The Mayor's Commission on Literacy (MCOL) will serve as the coordinating agency working with Drexel University as the techn' assistance arm of the project. MCOL and Drexel will select the types of computers purchased for the project and verify that the hardware meets the specifications of the IMSATT system. The IMSATT system will support both Macintosh and IBM based systems.

In addition to advising the Commission on the selection of the computers, Drexel University will give each of the eight agencies an opportunity to preview the system for at least two hours per site (16 hours of access to the system). Drexel will also thoroughly review the Courseware to develop a recommended pool of lessons to total no more than 300 hours. This preview and Courseware selection process is expected to take one month. It is anticipated that Drexel will need 150 hours of access to the system to review the Courseware.

Once this phase of the project is complete, Drexel will conduct a training for the staff of the eight agencies. This training will be hands-on and will require access to the IMSATT system for at least four hours. IMSATT is required to deliver the necessary emulation package to the Commission no later than four weeks after the execution of the contract. Drexel will load the emulation package on the computers before they are distributed to the sites.

Once review and training are completed this should take (approximately eight weeks) the computers will be given to the sites and they will be responsible for bringing their learners on-line with the system. Currently, it is understood that every learner will be able to access the system for a maximum of 45 hours per month. Instructor's time for examining learner records on the system will need to be deducted from each individual learners time. In the instance that the



1 of 2

learner has reached the 45 hour ceiling and wishes to continue instruction during that month, the name of the learner will be submitted to the Commission who will request a ceiling waiver from IMSATT.

The entire project will last eight months from the execution of an agreement between the Commission and IMSATT. This eight month period will include two months of review and training and six months of learner access. IMSATT will be paid a total of \$24,000. The first payment will be made to IMSATT upon execution of the contract. This payment will not exceed \$10,000. The balance of the contract will be made in five equal payments over the next five months, although service will continue for an additional two months. Bell Atlantic will charge each learner \$20.00 per month for usage of the system. MCOL and sites will make every effort to defray this cost to the selected one hundred learners.

IMSATT will insure that the system is completely operable for the duration of the contract. IMSATT will maintain appropriate staffing to insure that technical problems with the system can be resolved within 24 hours. The system will be down for routine maintenance only between 1:00 am and 5:00 am on Sundays, Wednesdays and Fridays. If other down-time is needed, the Commission will receive formal notification from IMSATT at least one week in advance of this occurrence. IMSATT guarantees that bulletin board capabilities are available in addition to the entire CYBUS Courseware.

APPENDIX A

2 of 2





Imsatt Corporation

Suite 301. George Mason Square 1175 West Broad Street Tails Church, Virginia 22/46 (7/3/533-75) (FAX 703/532-2742)

# IMSATT CORPORATION EDUCATION COURSEWARE

SECTION I:

HOME BASED CURRICULUM

**SECTION II:** 

**BASIC SKILLS CURRICULUM** 

**SECTION III:** 

SUMMARY OF COLLEGE CREDIT

**SECTION IV:** 

**GED CURRICULUM** 

**SECTION V:** 

**GAMES** 



Section I: HOME BASED CURRICULUM



# IMSATT CORPORATION HOME BASED CURRICULUM

ACADEMIC CURRICULUM		HOURS OF INSTRUCTION
BASIC SKILLS Reading Grammar Math English as Second Language		187 56 119 64
GED LEARNING SYSTEM Reading Writing Math Science Social Studies Computer Awareness		42 46 33 42 40 5
ADVANCED SCIENCES Algebra Geometry Precalculus Calculus I Calculus II Chemistry I Chemistry II Physics I Physics II		75 45 120 125 120 90 95 95
TECHNICAL CURRICULUM	Total	HOURS OF INSTRUCTION
Blueprint Reading Data Communications Electric Circuits Electronics Curriculum Energy Conservation Curriculum Opportunities in the Small Industrial Plan Control Systems That Save Energy Hydraulic Power Fundamentals Ladder Logic Mechanisms Microprocessors: A Short Course Pneumatic Power Fundamentals Programmable Controller Fundamentals Robotics Telecommunications Curriculum Variable Frequency Drive Fundamentals	<b>t</b>	8 16 42 345 10 10 65 4 111 60 42 11 26 120 16



Total

DATA PROCESSING	HOURS OF INSTRUCTION
Ada Overview Ada Programming	10
Ada Programming: Fundamentals	30
Ada Programming: Advanced Features	30
Ada Programming: Software Engineering	30
Business Systems Analyst Curriculum	
Introduction to Business Data Processing Concepts	25
Fundamentals of Systems Development	30
Data Base Management System Environment	12
Business Systems Analysis and Design	50
COBOL (Structured) Curriculum	300
Computer Literacy Curriculum	60
Data Processing Concepts Curriculum	· ·
Introduction to Computers	10
Data Representation	11
Data Processing Concepts	38
Introduction to Programming in BASIC	20
BASIC Programming Techniques	25
FORTRAN, Structured	75
FORTRAN 77, Structured Programming	95
FORTRAN (CYBER) Features	6
Pascal	90.
RPG Fundamentals	48
Total	995

PROFESSIONAL DEVELOPMENT	HOURS OF INSTRUCTION
Building Your Own Business Curriculum Change and Choice Customer Contact Skills Effective Sales Calls Helping Relationship Keyboarding for Information Processing (Gregg) Learning to Learn Overcoming Self-Defeating Behavior Reading Fundamentals Selling: The Fsychological Approach Selling: The Strategic Approach Curriculum Success Understanding Others Understanding Self Value Selling Word Processing Wang Word Processing System: An Introduction	39 14 4 10 16 8 8 3 22 14 21 21 5 4 16 7 4
Total	216



MANAGEMENT CURRICULUM	HOURS OF INSTRUCTION
Affirmative Action Management	6
Better Business Letters	13
Communication Skills	
Consulting Skills	ر و
Contract Bidding	2
Effective Supervision	3 8 2 2
How to Hire a Micro	14
International Travel Security	3
Managerial Planning, Organizing, and Control Curriculum	35
Managerial Success Curriculum	26
Problem Analysis and Decision-Making	_
Resource Management	24
Statistical Methods for Improving Performance (SMIP)	16
Supervisory Success	15
Time Management	7 5
1 mile Mamigement	2
Total	179
FINANCE CURRICULUM	HOURS OF INSTRUCTION
Accounts Deceivable Collegeing Total	
Accounts Receivable Collection Techniques	15
Capital Budgeting Curriculum	28
Finance for Management A Graphic Approach	14
Financial Management Curriculum	45
Financing for Long-Term Growth Curriculum	28
Short-Term Financial Planning Curriculum	28
Understanding Financial Statements Curriculum	28
Total	186



Section II: BASIC SKILLS CURRICULUM

#### Basic Skills Curriculum

Basic Skills is an individualized, computer-based education program intended for persons whose achievement in reading, mathematics or language is substandard and lies within the accomplishment described by elementary school, grades 3 through 8. Separate Basic Skills curricula exist for reading, mathematics and language usage.

Basic Skills instructional materials are separated into:

Objectives:

The smallest unit of instruction. It represents a measurable

competency within a given subject area.

Modules:

Deal with a basic concept which is composed of a group of specific

objectives.

Lessons:

A meaningful grouping of modules which are packaged together to

provide mixed practice of module concepts and testing to measure for

retention.

Courses:

A major subset of a curriculum with a conceptual thread throughout.

An example from the math curriculum is the "addition" course.

Basic Skills students have a wide range of abilities and backgrounds. Accordingly, each new student is first tested to determine his or her current level of competency within a given area of study. This diagnostic testing prevents the student from wasting time on familiar material. The student is instead placed at the most appropriate level and works through the CYBER-Based Instructional system to design a course that meets his or her particular needs. Thus, students are never the passive recipient of predetermined instruction, but take an active part in facilitating their education. The CYBER-Based Instructional system personalizes this working arrangement by using the student's name and providing graphic displays of the student's progress.

The material itself is presented in small, well-defined units that are less intimidating than large blocks of material. Specific learning objectives form the structure of each unit. These objectives progress from simple to complex, allowing the student to master the easier material and build up to the more difficult. Complete mastery of each objective must be achieved before the next objective is presented. Assigned material cannot be skipped over. The student's progress represents real learning—and can be measured.

When entering a curriculum for the first time, the student takes a diagnostic test which determines the proper module in which the student will begin. Within the various objectives, modules and lessons, additional testing is provided to determine that the student demonstrates adequate comprehension and understanding. Thus, through frequent, but not intimidating testing, the student realizes a form of individual guidance which approaches the tutorial setting.



#### Basic Skills Curriculum

#### Basic Reading Skills

Approximate Time: 187 Hours PLM File Name: øbsreadc

Content:

Course: Making New Words 1

Approximate Time: 20 Hours

Introduces the basic concepts involved in the structure of words. In this course, the student examines simple word building; prefixes and suffixes in context. Third grade equivalency in reading skills is a prerequisite.

Course: Making New Words 2

Approximate Time: 19 Hours

Further develops the student's skill in creating new words using suffixes such as "er" and "or," prefixes, adjectives and adverb suffixes. Compound words are also presented.

Course: Understanding New Words 1

Approximate Time: 23 Hours

Introduces the basic concepts involved in vocabulary development as a basis for comprehension. In this course, the student examines comparatives, pronouns and prepositions in context. Third grade equivalency in reading skills is a prerequisite.

Course: Understanding New Words 2

Approximate Time: 17 Hours

Introduces homonyms, homophones, and homographs in context; synonyms; group and member; cause and effect; and idioms.

Course: Understanding What You Read 1

Approximate Time: 28 Hours

Introduces the basic concepts involved in literal comprehension of written material. In this course, the student examines methods of locating basic facts and understanding, remembering and interpreting what he/she reads. Fifth grade equivalency in reading skills is a prerequisite.



#### Basic Reading Skills (cont'd)

Course: Understanding What You Read 2

Approximate Time: 16 Hours

Develops concepts in understanding the written word, including remembering details, identifying the main idea, and understanding implied facts.

Course: Thinking About What You Read 1

Approximate Time: 21 Hours
Introduces the basic concepts involved in interpretation of written material. In this course, the student examines techniques for interpreting facts, descriptions, conclusions and the total theme. Fifth grade equivalency in reading skills is a prerequisite.

Course: Thinking About What You Read 2

Approximate Time: 15 Hours

Develops the student's skills in describing looks and feelings, determining causal relationships, and making predictions. Also introduces similes.

Course: Judging What You Read

Approximate Time: 21 Hours
Introduces the basic concepts involved in evaluation of written materials. In this course, the student examines techniques for determining the differences between fact and nonfact and the purpose of the author, evaluating what is read and separating facts from opinions. Fifth grade equivalency in reading skills is a prerequisite.

Objectives:

Upon completion of the Basic Reading Skills curriculum, students should be able to:

Construct new words from root words using suffixes, prefixes, simple endings and compound words.

Acquire an eighth grade equivalency vocabulary.

Comprehend the literal meaning of written passages.

Evaluate a written passage by separating fact from opinion.



#### Basic Reading Skills (cont'd)

Prerequisites:

None. It is suggested, however, that the student possess the grade level equivalency in reading as specified in the individual course descriptions above.



#### Basic Skills Curriculum

#### Basic Grammar Skills

Approximate Time: 56 Hours Router File Name: øgbrouter

Content:

Course: Language and Usage

Approximate Time: 22 Hours

Introduces the basic concepts of the parts of speech used in the English language. In this course, the student examines nouns, verbs, pronouns, adjectives, adverbs, prepositions, conjunctions and articles. Fifth grade equivalency in reading and language skills is a prerequisite.

Course: Building and Using Sentences

Approximate Time: 14 Hours

Introduces the basic concepts of the structure of valid sentences. In this course, the student examines sentences, phrases, clauses and subject-verb agreement. Fifth grade equivalency in reading and language skills is a prerequisite.

Course: Word Usage

Approximate Time: 9 Hours

Introduces the basic concepts of proper word usage in sentences. In this course, the student examines plurals, word confusion and possessives. Fifth grade equivalency in reading and language skills is a prerequisite.

Course: Capital Letters and Punctuation

Approximate Time: 7 Hours

Introduces the basic concepts of capitalization and punctuation. In this course, the student also examines more complicated punctuation, including semicolons, colons and quotation marks. Fifth grade equivalency in reading and language skills is a prerequisite.

Course: Writing Letters

Approximate Time: 4 Hours

Introduces the basic concepts of writing conventions. In this course, the student examines techniques for writing personal and business letters and completing applications. Fifth grade equivalency in reading and language skills is a prerequisite.



## Basic Skills Curriculum

## Course: Reading

	CYBER Network Version		
76770346 97639003	Text Components  Basic Skills Curriculum, Administration Guide Reading Course Kit:  76361706 - Making New Words 1 & 2  76361707 - Understanding New Words, 1 & 2  76361708 - Understanding What You Read,  1 & 2  76361709 - Thinking About What You Read,  1 & 2  76361710 - Judging What You Read	18.00 18.00 18.00 15.00 11.00	Price 20.00 75.00
97613860	IBM PC Version (5 1/4" disks)  Basic Skills Reading (contains all disks and manuals)		695.00

Curriculum: Basic Skills

Course: Grammar

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76770346	Text Components  Basic Skills Curriculum, Administration Guide		<b>Price</b> 20.00
	•		
97639002	Grammar Course Kit	٠	25.00
	76360812 - Language and Usage	10.00	
•	76360813 - Building and Using Sentences	10.00	
	76360814 - Word Usage, Capital Letters	10.00	

#### Basic Grammar Skills (cont'd)

#### Objectives:

Upon completion of the Basic Language Skills curriculum, students should be able to:

Understand the parts of speech and how they are used in sentences.

Construct sentences, phrases and clauses.

Use plurals, negatives, homonyms and possessives in sentences.

Use capital letters and punctuation correctly in sentences.

Understand how to write personal and business letters and complete applications and forms.

Prerequisites:

None. It is suggested, however, that the student possess the grade level equivalency in reading and language skills as indicated in the individual course descriptions above.

#### Basic Skills Curriculum

#### Basic Math Skills

Approximate Time: 119 Hours

PLM File Name: øbsmath2

Content:

Course:

Basic Number Ideas

Approximate Time: 9 Hours

Introduces the basic concepts involved in sets, numbers and numeration systems. In this course, the student examines the concept and terminology of set theory, the basic concept of numbers and the basics of numeration systems. Third grade reading ability is a prerequisite.

Course: Addition 1

Approximate Time: 6 Hours

Introduces the basic concepts involved in addition of whole numbers. In this course, the student examines the basic concept of addition, basic addition facts, the properties of addition and the addition algorithm. Third grade reading ability and knowledge of basic number facts are prerequisites.

Course: Addition 2

Approximate Time: 7 Hours

Introduces more advanced work in addition of whole numbers, including addition of multi-digit numbers and regrouping.

Course: Subtraction

Approximate Time: 8 Hours

Introduces the basic concepts involved in the subtraction of whole numbers. In this course, the student examines the basic concept of subtraction, basic subtraction facts and the subtraction algorithm. Third grade reading ability and knowledge of basic number facts are prerequisites.

Course: Multiplication 1

Approximate Time: 7 Hours

Introduces the basic concepts involved in multiplication of whole numbers. In this course, the student examines the basic concept of multiplication, basic multiplication facts, the properties of multiplication and the multiplication algorithm.



#### Basic Math Skills (cont'd)

Course: Multiplication 2

Approximate Time: 11 Hours

Develops the use of the multiplication algorithm in instances that require no regrouping and in instances where regrouping is required.

Course: Division 1

Approximate Time: 10 Hours
Introduces the basic concepts involved in division of whole numbers. In this course, the student examines the basic concept of division, basic division facts and the division

algorithm.

Course: Division 2

Approximate Time: 8 Hours

Develops skills in simple division with regrouping and skills in higher order division with and without regrouping.

Course: Fractions 1

Approximate Time: 16 Hours

Introduces the basic concepts involved in arithmetic operations with fractions. In this course, the student examines the basic terminology and concept of fractions, and addition and subtraction of fractions.

Course: Fractions 2

Approximate Time: 8 Hours

Introduces the multiplication and division of fractions, including operations involving mixed numbers.

Course: Decimals

Approximate Time: 8 Hours

Introduces the basic concepts of decimals, including renaming to fractional numbers. This course introduces addition, subtraction, division, and multiplication of decimal numbers.



#### Basic Math Skills (cont'd)

Course:

Ratio, Proportion and Percent

Approximate Time:

7 Hours

Introduces the basic concepts involved in ratio, proportion and percent. In this course, the student examines the basic concepts of ratio, proportion and percent as well as analytic strategies for problem solving.

Course:

Geometry and Measurement

Approximate Time: 12 Hours

Introduces the basic concepts of geometric shapes and fundamentals of measurement. In this course, the student examines fundamental geometric concepts, line measurement, area measurement, volume/capacity measurement and mass (weight) measurement.

#### Objectives:

Upon completion of the Basic Mathematics Skills course, students should be able to:

Understand the concepts of the four basic arithmetic operations (addition, subtraction, multiplication, division).

Acquire the initial facts of the basic arithmetic operations and expand those into general arithmetic algorithms.

Understand the concepts and terminology involved in fractions and decimals.

Apply the four basic arithmetic operations to fractions and decimals.

Understand the basic concepts involved with ratio, proportion, percent, geometry and measurement and use these newly acquired skills in real-life applications.

Prerequisites:

None. It is suggested, however, that the student possess the grade level equivalency in reading as specified in the individual course descriptions above.



Curriculum: Basic Skills

Course: Mathematics

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10.00 on 2, 10.00 nals 10.00 t,	
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Section III: SUMMARY OF COLLEGE CREDITS



## CYBIS CREDIT HOUR SUMMARY

COURSE NAME	TOTAL HOURS	FILE NAME	VALID. CEU	ACE CREDIT
<u>ACADEMIC</u>				
Algebra	75	0b <b>ac</b>	7.5	2 1
Basic Reading Skills Making New Words 1 Making New Words 2 Londerst. New Words 1 Underst. New Words 2 Underst. New Words 2 Underst. What You Read 1 Thinking About What You Read 1 Thinking About What You Read 2 Judging What You Read	187 20 19 23 17 28 21 15	Obsreadc	7.5	2 sem. hrs.
Basic Grammar Skills Language and Usage Building and Using Sentences Word Usage Cap. Letters and Punctuation Writing Letters	56 22 14 9 7 4	0gbrouter		
Basic Math Skills Basic Number Ideas Addition 1 Addition 2 Subtraction Multiplication 1 Multiplication 2 Division 1 Division 2 Fractions 1 Fractions 2 Decimals Ratio, Proportion and Percent Geometry and Measurement	119 9 6 7 8 7 11 10 8 16 8 8	Obsmath2		
Calculus 1	125	Ocalopim	12.5	4 sem. hrs.
Calculus 2	120	Ocalc2plm	12	4 sem. hrs.
Chemistry 1	90	Ochemtla	9	3 sem. hrs.
Chemistry 2	95	Och2curr	9.5	3 sem. hrs.
Intro. to Computer-Based Educ.	8	0cbee	8	J Jour. Hij.
CREATE Curriculum Fundamentals Design Design/Development Interface Development	250	Ocreatecmi Ocone Octwo Octhree Octour	25	8 sem. hrs.



CAI Design and Development CYBER Author Language - Part I CYBER Author Language - Part II Computer-Managed Instruction Management		Octive Ocsix Ocseven Oceight Ocnine	
English as Second Language	7	0etcsif	.7
English as Second Lang Spanish	64	0eslif	
GED - Math Basic Number Ideas Math Sentences, Part 1 Math Sentences, Part 2 Geometry Measurement Special Topics	<b>ذ</b> ڌ		
GED - Reading Practical Reading Reading Skills and Strategies Intrepreting Literature Poetry Drama Commentary on Lit. and Arts	42		
GED - Writing Mechanics Grammar Diction and Style Sentence Structure Logic and Organization Essay Writing	46		
GED - Science Chemistry Physics Biology Earth Science Biology	42		
GED - Social Studies Geography Economics Behavioral Science Political Science History	40	·	
GED - Computer Awareness Computers for Anyone Computers and Employment Social Values and Computers Personal Computer Uses Computers and the Future	5		
Geometry	45	Ohsgeo	4,5
Magnetism	8	0 magnets	.8.



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Ada Programming: Advanced Features	30	0ada2	3	3 sem. hrs.
Ada Programming: Software Engineering	30	0ad <b>a</b> 3	3	3 sem. hrs.
BSAC - Intro to Bus. Data Proc. Concepts	25	0syan	2.5	3 sem. hrs.
BSAC - Fundamentals of Systems Devel.	30	Osyan	3	3 sem. hrs.
BSAC - Data Base Mgmt. System Zav.	12	0syan	1.2	3 sem. hrs.
BSAC - Bus. Sys. Analysis and Design	50	Osyan	5	3 sem. hrs.
COBOL (Structured) Curriculum	300	0cblc	30	5 sem. hrs.
Computer Literacy Curriculum Computer Literacy Computer Literacy Training	60 48 12	Ocomlitif clintcur	5	3 sem. hrs.
DPCC - Intro to Computers	10	0icompcur	,1	
DPCC - Data Representation	11	0dpccurr	1.1	1 sem. hr.
DPCC - Data Processing Concepts	38	0dpcc	3.8	
DPCC - Intro to Programming in BASIC	20	Oinbascur	2	1/2 sem. hrs.
DPCC - BASIC Programming Techniques	25	0adbascur	2.5	1/2 sem. hrs.
FORTRAN, Structured	75	Oforto	7.5	2 sem. hrs.
FORTRAN 77, Structured Programming	95	Ofortcurr	9.5	3 sem. hrs.
FORTRAN (CYBER) Features	6	0cffc	6	
Pascal	90	Opascur	9	2/3 sem. hrs.
RPG II Fundamentals	48	Orpgc	4.8	l sem. hr.
PROFESSIONAL DEVELOPMENT				
Building Your Own Business Curriculum	39	Nbyob	3.9	2 sem. hrs.
Change and Choice	14	Opicaif	1.4	
Customer Contact Skills	4	Occsif	.4	
Effective Sales Calls	10	<b>Osalesc</b>	1	2 sem. hrs.
Helping Relationship	16	Occoncern	1.6	i sem. hr.
Keyboarding for Info. Processing (Gregg)	8	Ockeyrout	.8	
Learning to Learn	8	Olearn l	.8	
Overcoming Self-Defeating Behavior	3	Osdbif	.3	
Reading Fundamentals	22	Oreadfour	2.2	



Selling: The Psychological Approach	14	0psprouter	1.4	2 sem. hrs.
Selling: The Strategic Approach Curr.	21	Osalesif	2.1	2 sem. hrs.
Success	21	Osuccurr	2.1	l sem. hr.
Understanding Others	5	Oohif	.5	
Understanding Self	4	Oselfif	.4	
Value Selling	16	Ovaluesel	1.6	2 sem. hrs.
Word Processing	7	Ogenwpif	.7	- 2020 1410.
Wang Word Processing System: An Intro	4	Owangwpif	.4	
MANAGEMENT				
Affirmative Action Management	6	0eeoaa		
Better Business Letters	13	Obzletteri	1.3	l sem. hr.
Communication Skills	3	Oicom	.3	l sem. hr.
Consulting Skills	8	Optccs	.8	I sem. hr.
Contract Bidding	2	Ocbidgpif	.2	- 30i2i. iii.
Effective Supervision	2	0esc	.2	l sem. hr.
How to Hire a Micro	14	Ohirec	1.4	- 304. 114.
International Travel Safety	3	Oitsif	.3	
Managerial Plan., Org., Control Curr.	35	Ompocif	3.5	2 sem. hrs.
Managerial Success Curriculum	26	Omanages	2.6	1 sem. hr.
Problem Analysis and Decision Making	24	0edmif	2.4	1 sem. hr.
Resource Management	16	Oreman	1.6	1 sem. hr.
Stat. Methods for Improving Performance	15	0smipc	1.5	i jeni. III.
Supervisory Success	7	Osuproute	.7	l sem. hr.
Time Management	5	0time	.5	
FINANCE				1 sem. hr.
Accts. Receivable Collection Techniques	15	0arcif	1.5	1
Capital Budgeting Curriculum	28	Ofinemil	2.8	l sem. hr.
Finance for Mgmt.: A Graphic Approach		0vbfif		3 sem. hrs.
Financial Management Curriculum	45	Ofmindex	1.4	
5	.5	Villinger	4.4	3 sem. hrs.



Financing for Long-Term Growth Curr.	28	Offcmi	2.8	3 sem. hrs.
Short-Term Financial Planning Curr.	28	0stfcmi	2.8	3 sem. hrs.
Understanding Financial Statements Curr. Understanding the Balance Sheet Understanding the Income Statement Analyzing and Interp. Fin. Statements Finance Flow Statements: Prep. and Uses	28		2.8	3 sem. hrs.



Section IV: GED CURRICULUM



#### System Overview

The General Educational Development Learning System (GEDLS) is an individualized, computer-based instructional system that is designed to help students prepare for rand pass the General Educational Development (GED) exam.

The GEDLS is divided into six major curricula, each of which is composed of several courses. These courses are, in turn, made up of modules. In five of the curricula, each module contains the following components:

- Learning Activity This activity is a tutorial lesson that provides the actual instruction relating to the stated objectives.
- Application Lesson After completing the tutorial, the student is presented with a reinforcement activity to help ensure retention of the material presented.
- Test This activity is a self-check of the student's understanding of the material presented in the module.

The CYBER network version of the GEDLS was revised in the fall of 1988 to reflect changes in the GED Examinations. The revised GED exams contain items and passages that relate to the role and impact of computer technology. However, the exams do not directly test computer proficiency or computer literacy. For this reason, the revised GEDLS contains a new "user-friendly" Computer Awareness curriculum containing tutorial lessons, but no texts or application lessons.

The GEDLS contains six curricula:

Reading

Writing

Mathematics

Social Studies

Science

Computer Awareness

On the following pages, each curriculum is listed separately. Each listing provides the names of the courses contained in each curriculum, along with a brief description of the course content and the name of the Instructor File used to deliver each course.



The revised General Education Development Administration Guide provides greater detail, including a listing and description of the modules contained within each course. Appendices to the Administration Guide provide detailed directions for creating, setting up, and using CYBER-Based Instruction "group" files to deliver the courses. Only one copy of the Administration Guide is needed, as it covers all six of the GEDLS curricula.

#### **Mathematics**

Approximate Time: 33 Hours

Course Content:

The GED Mathematics curriculum first introduces the student to positive and negative numbers and simple equations. It then presents more complex problems dealing with equations in two variables, and asks the student to determine area, volume, percents, and angles.

The six courses that make up the Math Curriculum are:

Basic Number Ideas Instructor File: 2zmath1if Introduces practical, frequently used math skills. Students practice addition, subtraction, multiplication and division of integers, and gain an understanding of sets, variables, and square roots.

Math Sentences, Part 1 Instructor File: 2zmath2if Teaches how to solve equations, introduces the concepts of monomials and binomials, and requires students to solve some common types of equations.

Math Sentences, Part 2 Instructor File: 2zmath3if Teaches how to solve equations containing two variables, introduces the concept of the coordinate plane, and gives students the opportunity to solve some common types of two-variable equations.

Geometry Instructor File: 2zmath4if Teaches about angles, triangles and circles, and introduces the Pythagorean Theorem.

Measurement Instructor File: 2zmath5if Discusses the basic concepts of metric measurement; provides instructions for determining the areas of triangles, rectangles, parallelograms, trapezoids, circles; presents methods for finding the volumes of cubes and spheres.

Special Topics

Instructor File: 2zmath6if
Teaches about percents (including those less than one and greater than one hundred), averages and probability; and defines and shows how to compute the value of means and averages.

Prerequisites: None



Learning System: General Educational Development

Curriculum: Mathematics

	CYBER Network Version	
	Text Component	Price
97604031	General Education Development, Administration Guide	12.00
	IBM PC Version (5 1/4" disks)	
97601180	Mathematics Instructional Disks and Texts	495.00



#### Reading

Approximate Time: 42 Hours

Course Content:

The GED Reading curriculum offers students an opportunity to improve their reading skills. Students will use readings from a variety of materials, including classic literature, poetry, drama, and newspapers. Skills presented include finding the main idea and identifying supporting details.

The six courses that make up the Reading curriculum are: ,

Practical Reading Instructor File: 2zread1if Emphasizes daily used reading skills by having students read passages from contracts, magazine articles, recipes and catalogs.

Reading Skills and Strategies Instructor File: 2zread2if Introduces skills that should help improve reading ability in the areas of math, social studies and science. Students use such reading skills as identifying comparisons and contrasts, cause and effect relationships, and specific details.

Interpreting Literature Instructor File: 2zread3if Includes identifying the author's style, tone, purpose and making inferences about passages from formal and informal essays, short stories, novels, biographies and autobiographies.

Poetry Instructor File: 2zread4if Illustrates the differences between poetry and other literary forms, and asks students to identify the rhyme scheme, meter and such types of figurative language as similes, metaphors and personification.

Drama Instructor File: 2zread5if Introduces various dramatic techniques, helps students interpret the meanings of plays, and asks them to identify such various components as setting, style and tone.

Commentary on Literature and the Arts Instructor File: 2zread6if This course introduces reviews of literature and the Arts and helps students interpret reviews..

Prerequisites: None



Learning System: General Educational Development

Curriculum: Reading

	CYBER Network Version	
97604031	Text Component  General Education Development, Administration Guide	
	IBM PC Version (5 1/4" disks)	
97600999	Reading Instructional Disks and Texts	495.00



#### Writing

Approximate Time: 46 Hours

Course Content:

The GED Writing curriculum is designed to help students improve their writing skills through practice and recognition of some features of standard writing styles. Students are asked to identify parts of speech, correctly spelled words, formal and informal writing styles, sentence fragments and topic sentences.

The six courses that make up the Writing curriculum are:

Mechanics Instructor File: 2zwrit1if
Teaches simple rules for spelling, punctuation and capitalization and asks
students to identify incorrect ones.

Grammar Instructor File: 2zwrit2if
Presents the basic grammatical skills necessary to improve writing, identifies parts of speech, and discusses how to make verbs agree with their subjects and pronouns agree with their antecedents.

Diction and Style

Instructor File: 2zwrit3if
Teaches skills to make writing more interesting and effective, shows how to avoid inappropriate language and an over-written style, and asks students to identify formal and informal writing styles.

Sentence Structure Instructor File: 2zwrit4if
Teaches how to make writing clearer by avoiding sentence fragments, misplaced modifiers, run-on sentences, and awkward construction.

Logic and Organization Instructor File: 2zwrit5if Concentrates on how to write organized, well-developed paragraphs, and asks students to identify topic sentences and to determine whether a paragraph has been developed through example, comparison and contrast, or cause and effect.

Essay Writing Instructor File: 2zwrit6if Introduces the essay writing process and provides students with strategies for generating an essay.

Prerequisites: None



Learning System: General Educational Development

Curriculum: Writing

Curricululit:	Witting	
	CYBER Network Version	
	Text Component	Price
97604031	General Education Development, Administration Guide	12.00
	IBM PC Version (5 1/4" disks)	
97601032	Writing Instructional Disks and Texts	495.00



#### · Science

Approximate Time: 42 Hours

Course Content:

The GED Science curriculum presents many basic concepts and principles common to introductory science courses. The student studies genetics, cell theory, health, and reproduction, as well as topics in physics, chemistry and earth science. (There are both required and optional modules in each lesson in the Science Course. Students must successfully complete the required modules to gain mastery in each course.)

The four courses that make up the Science curriculum are:

Chemistry

Instructor File: 2zsci1if

Teaches about the composition, structure and property of matter, and the symbols of elements and formulas of compounds; presents the properties of an atom; and asks students to identify types of solutions and describe the properties of acids, bases, and salts.

Physics Instructor File: 2zsci2if Introduces the basic concepts and theories; presents the metric measurements of area, volume, pressure, and temperature; teaches how to classify different states of matter and explains what microwaves are.

Biology Instructor File: 2zsci3aif and 2zsci3bif Introduces cell theory, reproduction, the nervous system, and genetics; presents such topics as the role of the thyroid gland, the development of diseases, the interaction of people and their environments.

Earth Science Instructor File: 2zsci4if Focuses on astronomy, geology, and weather; presents the names of the planets in the solar system, the reasons for the earth's seasons, the earth's geological history, and the composition of the oceans and atmosphere.

Instructor File: 2zsci5if
Introduces cell theory, reproduction, the nervous system, and genetics; presents such topics as the role of the thyroid gland, the development of diseases, the interaction of people and their environments.

Prerequisites: None



Learning System: General Educational Development

Curriculum: Science

	CYBER Network Version	
	Text Component	Price
97604031	General Education Development, Administration Guide	12.00
	IEM PC Version (5 1/4" disks)	
97601105	Science Instructional Disks and Texts	. 395.00



#### Social Studies

Approximate Time: 40 Hours

Course Content:

The GED Social Studies curriculum presents major events in United States history, including the Civil War and the Great Depression, and introduces concepts such as motivation, prejudice, status, and self-esteem. The curriculum also provides instruction in geography and economics.

The five courses included in the Social Studies curriculum are:

Geography Instructor File: 2zss1if Gives practice in reading maps, graphs, and charts; and shows how the environment, the use of natural resources, and population distribution affect lifestyles.

Economics Instructor File: 2zss2if
Teaches how the production and consumption of goods and services define economic systems, divisions of labor, the causes of depression and inflation, and different economic systems, from communism to capitalism.

Behavioral Science Instructor File: 2zss3if
Teaches students to identify different social institutions, including family,
religious and educational ones, and to understand how discoveries, inventions
and communication influence social and cultural change.

Political Science Instructor File: 2zss4if
Introduces students to different systems of government; explains how and why power is divided between the three branches of government; discusses the concepts of civil rights and civil responsibilities.

History Instructor File: 2zss5if
Presents the highlights of the United States' development as a nation—from the first settlement in Jamestown to the present—and discusses such topics as social and economic problems, wars, immigration, and urbanization.

Prerequisites: None



Learning System: General Educational Development

Curriculum: Social Studies

Curricus		
	CYBER Network Version	
	Text Component	Price
97604031	General Education Development, Administration Guide	12.00
	IBM PC Version (5 1/4° disks)	
97601070	Social Studies Instructional Disks and Texts	495.00



## General Educational Development Learning System

## Computer Awareness

Approximate Time: 5 Hours

Instructor File: 2zclitif

Course Content:

The Computer Awareness curriculum is designed to help students gain a basic understanding of computers and their uses. There is no formal testing in the curricula.

The five courses included in the Computer Awareness curriculum are:

## Computers for Anyone

This course shows the level of computer involvement in our society and provides instruction on the functions and parts of a simple computer.

Computers and Employment

This course shows the impact computers have had on businesses and on workers. Change sin the workplace and individual jobs that have resulted from computerization are highlighted.

## Social Values and Computers

Points out potential effects of computers on selected social issues such as employment and distribution of wealth.

# Personal Computer Uses

Introduces the personal computer, its uses, and its parts. Discusses ways personal computers are used today and provides information on making appropriate hardware and software decisions when selecting a personal computer for a specific set of users.

# Computers and the Future

Explores the potential influence the computer will have on the society of the future.

Prerequisites:

None



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Learning System: General Educational Development

Curriculum: Computer Awareness

CYBER Network Version

97604031

Text Component
General Education Development,
Administration Guide

12.00

Price

ERIC Full Text Provided by ERIC SECTION V: GAMES

## GENERAL INTEREST

"etc" is an informal index of popular lessons, games, and notesfiles. Most of these files have not been published by Control Data.

joshua "War Games" Simulation

airbase Animation of a typical airbase

Graphics -- Samples of PLATO art art

mensa Sample IQ Test

dryguich Western mining town

ibmnotes Notesfile for IBM users

games More games!

labyrinth The Labyrinth Dungeon

Animation in notes (fun picture-notes) anim

kidtalk Notesfile for kids

maps Maps you can use

cinema That's Entertainment

camouflage Stellar War Game

scrabb Scrabble

Otalko Multi-user CB Radio

dreams Notes about dreams

conquest Inter-planetary Warfare

rocknots Rock 'n Rollers

hivolts An Electrifying Game

zonkers A Strategy Game

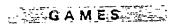
homelink

PLATO Homelink User Information Exchange

frp Fantasy Role Playing

ztypo

INDIVIDUAL GAMES



#### INDIVIDUAL GAMES

#### CHILDREN'S GAMES

100 Yard Dash Odash

Up to 7 people can play, each one betting on a specific runner in the race. Three racetrack selections are available with different odds and risk factors. Players compete to win the most money and be listed as one of the top 25 money winners. For all ages. Open-ended.

Addition and subtraction: beehive game Obees
Offers a diagnostic test on counting and practice in simple addition and subtraction. Animation of 2-9 bees flying into and out of a beehive. Elementary math students. 5-10 minutes.

Addition: space port game. Oport. Game provides drill in addition and subtraction. In a "space port" you are given a number for the "in" gate of the landing spacecraft and must determine the "out" gate for the spacecraft by adding or subtracting. Elementary math. Open-ended.

Coconut Story: a math puzzle Ococos

Through a story about five sailors marooned on a desert island, you are encouraged to develop an algorithm for solving the problem described, General audience. 30 minutes.

Decimals: darts Oddarts

Practice locating decimal numbers on a number line by determining the balloon's location and throwing a dart toward that location. Elementary math 30-45 minutes.

Fractions: darts Odarts
Whole numbers, fractions or decimals. Elementary math. 40-50 minutes.

Signed numbers: ant hill game Dants
Introduction to signed numbers using animated animal friends. You must use positive and negative signs to answer addition and subtraction problems. Elementary math. Open-ended.

Spelling: han, a spy Ohangspy
Follows the classic "hangman" game. You guess letters to spell out a word. Each wrong guess adds a part to a drawing of a spy (with a number of different possible faces), until after 10 wrong guesses the drawing is complete and the spy is hung. General audience. Open-ended.

Spelling: ordeal of the hangman Ohangman

Spelling game in which you can either plead guilty and be hanged immediately, or plead innocent and be given six word to spell correctly. A certain number of incorrect guesses ere allowed for the letters contained in each word. For every word not spelled correctly en execution takes place. General audience. Open-ended.

### GAMES FOR EVERYONE

Aerospace engineering games Oaerogames

Through four simulation games you can tackle simple engineering problems. Airplane games: 1) improve take-off performance: 2) final design of an airplane. Spacecraft games: 1) launch spacecraft to another planet: 2) land spacecraft on the moon Aerospace engineering students, accelerated high school or college. Open-ended.



#### Concentration Oconcentra

Memory skill gime in which you see a board of 59 covered squares, each hiding a picture. There are 26 different pictures end one "free square". You try to match identical pictures by uncovering 2 squares on each turn. General audience. Open-ended.

#### Crossword puzzies Ocrosswdn

Collection of crossword puzzles. You can play the crossword and store your scores. General audience. Open-ended.

#### Dice game: probability Onoise4

Teaches and demonstrates the principles of signal detection theory. You can play against the PLATO system or against someone else at the same terminel. After each game, the players are shown the likelihood ratios and the beta, which can be used to determine the optimum strategy of play. General audience. Open-ended.

## Fun: a collection of games and activities Ofun

20 tasks or puzzles to investigate and solve, Recreational and educational, General audience, Open-ended,

#### Mental arithmetic: mathreact Omreact

Provides drills in elem math. The object is to answer a series of 20 problems quickly end correctly. You then see a score based on how long it took and how many questions were missed. General eudiencs. Open-ended.

#### Number guessing: bagels game Obagels

You guess a 3-digit number. For each guess a clue is given. The PLATO system indicates "Fermi" if 1 digit is right and in the correct place, "Pico" if 1 digit is right, but in the wrong place, and "Bagels" if no guesses are right. General audience. Open-ended.

#### Roll'em Orollem

Dica game in which you try to achieve a high score by adding up "hands" that the rolling dica give you. A "game-of-the-day" gives you a chance to play against others on a common set of rolled dice. Records are kept for the 200 best Roll'em players with the 20 bast players' names displayed. General audience. Open-ended.

#### Token solitaire Otokens

A game of logic. Out of a possible six pictures, four are randomly chosen and put in a particular order by the PLATO system. You must determine which four pictures were chosen and what positions they occupy. General audience. Open-ended.

#### **MULTI-PLAYER GAMES**

#### **ADVENTURE GAMES**

#### Moria Omoria

Depicts the mythical land of Moria, in which characters chosen by the players move through multiple levels of rooms end corridors. The game is an open-ended "dungeon" game, designed to be played by many usars simultaneously. Age 10-adult. Open-ended.

#### **BOARD GAMES**

#### Backgammon Obackgam

Computer backgammon offers up to 6 simultaneous interterminal games or 9 single terminal games. You may leave the lesson and resume the game at a later date. You may watch other games and send personal messages between the players. General audience. Open-ended.

Bingo Obingo

301perterminal game of Bingo that up to 20 people may play simultaneously. The PLATO system "calls the mbers," records the top 40 money winners, end stores their records. General eudience, Open-ended.

Go Oplaygo

The ancient Chinese board game called "Go". The object is to control territory by placing your "stones" on the intersections in the playing grid. Two may play it as an interterminal game or you can play against the PLATO system. The player who holds the most territory when further moves cannot be made wins. General eudience. Open-ended.

#### Mazewar Omazewar

Maze game which you can play with one terminal or between two terminals. The object of the game is to race from the starting point to the finishing point in the maze. If the time is fast enough, it is added to the "all-time" records. General audience. Open-ended.

#### CHILDREN'S GAMES

#### Deer hunt Ohunt

Simulates hunter moving through the forest in pursuit of a deer. You can compete with 1-5 players at a single terminal or against records of top scoring players at other terminals. All ages. Open-ended.

#### Drag strip Odrag

Up to 7 people can play, each one betting on a specific driver in the race. Three racetrack selections are available with different odds and risk factors. Players compete to win the most money and be listed as one of the top 25 money winners. For all ages. Open-ended.

## Estimation: obstacle course game lobs

Adding and subtracting decimals. An interterminal game in which you use decimal numbers to move e ball along a number line while maneuvering through chutes and attempting to avoid various "traps". An understanding of decimal fractions is necessary. Up to 4 players can play on the same "course" at the same time, and players may select the level of difficulty at which they want to play. Elementary math. Open-ended.

#### Fractions: basketball game Odrib

Offers experience in adding and subtracting decimals. An interterminal game in which you use the decimal numbers to move a ball along a number line while maneuvering through chutes and attempting to avoid various "traps". Understanding of decimal fractions is necessary. Up to 4 players can play on the same "course" at the same time, and players may select the level of difficulty at which they want to play. Elementary math. Open-ended.

#### Fractions: high wire game Omonkey

Allows 3 ways to practice adding fractions with like end unlike denominators. PLATO hides the monkey, play "hide the monkey" with a friend, you hide the monkey yourself. Elementary math. Open-ended.

#### Make a sentence Osentences

Allows you to create simple sentences which PLATO animates for you. Can be used in three different languages—English, German, or Swedish. All ages. Open-ended.

#### Racing game Oracing

Collection of 4 racing games: Horse Race, Drag Strip, 100 Yard Dash, and Pop-e-Wheelie. Each game allows up to 7 people, each staked \$100, to play at one time from one PLATO terminal. 3 racetrack selections are aveilable with different odds and risk factors. General audience. Open-ended.

#### **SCIENCE GAMES**

#### Planetary excursion module (PEM) Open

"Real time" lunar lander simulation. You may select from 10 possible landing sites and are offered 3 degrees of freedom; that is, you may move your "spaceships" along the x, y, and z axes. General audience. Open-ended.



Projectile mountain game Ophysgame

Players take turns trying to hit the top of the other's mountain, from two mountains away. The time limit decreases with successive attempts. The speed of the projectile is measured in meters per second and the angle in degrees. Mountain heights are different for each new game. An on-page calculator is available. High school and college physics students. Open-endad.

Ye olde, original racetrack Oracetrack

Simple simulations of the physical laws governing motion and the laws of thermodynemics. You see a visual interpretation of the important concepts of position, velocity, and acceleration in the racetrack simulation. Maxwell's demon gives a simulation of gas with high and low speed molecules with two chambers. General audience. Open-ended.

#### STRATEGY GAMES

Airfight Oairfight

Three-dimensional simulation of a dogfight between jet fighters. General audiance. Open-ended.

Coordinates: sea battle game Obattleshi

The popular game "Battleship" is used to teach the location of points on a graph. You place ehips on a graph and play against the PLATO system. You fire at the opponent's ships by choosing an x, y location on the graph. Elementary math students. Open-ended.

Coordinates: tic-tac-toe Occttt

Game of tic-tac-toe using x and y coordinates on a grid. Junior high and up. Open-ended,

Coordinates: torpedo game Osea

Interterminal game provides practice using decimal numbers to estimate fractional distances on a number line. One player controls a boat and the other has a submarine. Each tries to shoot the opponent's piece. Elementary math. 20-30 minutes.

Empire Oempire

A spacewar game which can be played by up to 30 people at one time. There are 4 teams of players: Romulans, Kazari. Federation, and Orion. Each team initially controls one portion of the universe. Each player controls a starship. A player can fight other ships or try to conquer planets. The ultimate goal of the game is to control all the planets in the universe. A game may continue for several days before one team emerges as the victor. General audience. Open-ended.

#### NIM Omlenim

A game of logic, involving strategic moves, but also containing elements of chance. The object of the game is to remove individual matches from piles in such a way that one's opponent is left with only one match. The number of piles and matches in each pile is random. Games may be played against players at other terminals, by yourself against PLATO, or between 2 people at the same terminal. General audience. Open-ended.

Wall street Owalistree

Simulation of stock market transactions. General audience, beginning business students, 10 rounds of various lengths.

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INTERACTIVE EDUCATIONAL S Y S T E M S DESIGN · INC

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#### MEMORANDUM OF AGREEMENT

To:

Donna Cooper

Philadelphia Mayor's Commission on Literacy

From:

Jay P. Sivin-Kachala

Interactive Educational Systems Design, Inc.

Date:

January 30, 1993

Re:

IESD Impact Analysis Evaluation for the Mayor's

Commission on Literacy Distance Learning

Initiative

This document confirms that Interactive Educational Systems Design (IESD), Inc. will design and implement for the Philadelphia Mayor's Commission on Literacy an Impact Analysis Evaluation of a pilot distance learning initiative that tests the effectiveness of home-based, interactive computer-assisted instruction (CAI) for adult learners. This project is being coordinated by the Mayor's Commission on Literacy on behalf of eight non-profit, community-based adult literacy education programs.

The remainder of this document details IESD's plan for the Impact Analysis Evaluation and is divided into three parts:

- Goals of the Evaluation
- \* Evaluation Plan
- \* Estimate of Cost

#### Goals of the Evaluation

The goals of the evaluation will be:

\* To determine whether home-based CAI, coupled with classroom learning, results in accelerated rates of achievement in reading, writing, and mathematics skills.



#### Memorandum of Agreement, To D. Cooper From J. Sivin-Kachala, 1/30/1993

- \* To relate home-based CAI, coupled with classroom learning, to specific areas of achievement -- as perceived by teachers and students.
- \* To determine whether home-based CAI, coupled with classroom learning, results in higher student motivation and more positive attitudes toward learning.
- \* To determine whether home-based CAI, coupled with classroom learning, results in increased student self-esteem.

#### Evaluation Plan

In this section, we describe the evaluation plan in detail.

## Preliminary Data Collection

In mid December 1992, we met with representatives of the Mayor's Commission on Literacy and the participating adult literacy education programs. The purposes of this meeting were:

- \* To learn as much as possible about the differences among the programs involved in the project.
- \* To present evaluation issues and options, and to gain the input of the participants.

As a follow-up to this meeting, representatives of the eight participating adult literacy education programs were asked to provide detailed information about their programs in written form. Their responses were analyzed by IESD.

#### Testing Instruments

IESD identified, analyzed, and selected testing instruments to meet the goals of the proposed evaluation.

Achievement. To assess achievement in reading and mathematics, the Test of Adult Basic Education (TABE) Survey Form, Locator Test and Level E, M, or D (CTB MacMillan McGraw-Hill) will be administered as a pre- and post-test.

To assess achievement in writing, essay tests will be administered as a pre- and post-test, using topics provided by the GED Testing Service. Each test will consist of two essays, which will be scored by an independent agency



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trained in the holistic scoring technique used by the GED Testing Service.

In addition to these formal assessment tools, IESD will construct survey instruments that will capture teacher and student perceptions of achievement over time.

- \* Teachers will periodically identify specific concepts and skills that were covered in class and indicate the percentage of the class achieving mastery. For broad skills for which gradual improvement over time is the goal (e.g., reading comprehension; writing) teachers will assign each student an improvement rating, using a 5-point Likert scale. Teachers will also explain their ratings, citing specific examples of student improvement.
- \* Students will periodically assign themselves improvement ratings for reading, writing, and mathematics, using a 3-point Likert scale, and will indicate what they think are the causes of their improvement (e.g., adult education classes, using the computer at home, other factors). Students will also be asked to identify their personal learning goals, to assign themselves improvement ratings for these goals (using the same 3-point Likert scale), and to indicate what they think are the causes of their improvement.

Motivation and Positive Attitudes Toward Learning. Retention rate will serve as a measure of student motivation to build literacy skills.

In addition, a modified version of the Survey of Study Habits and Attitudes, Form C (The Psychological Corporation) will be administered as a pre- and post-test to assess changes in attitudes toward learning.

<u>Self-esteem</u>. To assess changes in student self-esteem, the <u>Culture-Free Self-Esteem Inventories for Children and Adults, Form AD (Pro-Ed) will be administered as a pre- and post-test.</u>

<sup>1.</sup> Adapted from a method described in D. D'Amico-Samuels, Perspectives on Assessment from the New York City Adult Literacy Initiative: A Critical Issues Paper (New York: Literacy Assistance Center, November 1991).



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Additional Data Collection

The Commission staff monitor will provide IESD with monthly time-on-task and lesson mastery data for all work completed by students on the home computers.

#### Evaluation Design

As indicated above, the evaluation includes a pre-test (January 1993) and a post-test (June 1993) for:

- \* Achievement in reading, writing, and mathematics
- \* Attitudes toward learning
- \* Self-esteem

Normative data exists for the TABE, the Survey of Study Habits and Attitudes, and the Culture-Free Self-Esteem Inventories for Children and Adults to allow for comparisons of the students receiving the experimental treatment with other students.

In addition, some of the adult literacy education programs participating in the project will provide control groups. IESD will oversee the selection of control groups so that they match the experimental groups as closely as possible in terms of current achievement level. For the participating students attending these programs, the following research questions will be asked:

- \* Does the experimental treatment group demonstrate significantly greater gains in reading, writing, and mathematics skills than the control group?
- \* Is the retention rate of the experimental treatment group significantly higher than that of the control group?
- \* Does the experimental treatment group demonstrate significantly greater improvement in attitudes toward learning than the control group?
- \* Does the experimental treatment group demonstrate significantly greater improvement in self-esteem than the control group?

IESD will conduct statistical analyses to answer these research questions.



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Finally, the data collected from the teacher and student survey instruments will be analyzed to identify specific areas of achievement related to the instructional objectives of each adult literacy education program and to the personal learning goals of students. As part of this analysis, we will compare the data collected from the teachers and students to monthly time-on-task and lesson mastery data for all work completed by students on the home computers. Process evaluation data provided by Drexel University will also be considered in this analysis. We will look for patterns of achievement related to the use of the home computers.

Ongoing Communication with Drexel University Process Evaluators

IESD will maintain ongoing contact with the Drexel evaluators to keep abreast of program changes and software or hardware problems that may impact on the outcome of this initiative.

## Analysis Report

We will prepare a written analysis report presenting and explaining our findings. This will be submitted to the Commission in July 1993.

## Debriefing the Commission Staff

After submitting our report, IESD analysts will be available to answer any questions the Commission staff might have. If desired, a formal debriefing session can be arranged.

#### Estimate of Cost

For consulting services as Impact Analysis Evaluator for a pilot distance learning initiative that tests the effectiveness of home-based, interactive computer-assisted instruction (CAI) for adult learners.

\$15,000.00



Memorandum of Agreement, To D. Cooper From J. Sivin-Kachala, 1/30/1993 Page 6

The above estimate will be distributed as follows:

Completion of pre-testing

\$5,000.00

Completion of data collection

prior to post-testing

5,000.00

Submission of analysis report

5,000.00

The estimate does not include the cost of any third-party testing instruments available for use on a fee basis.

It is assumed that the written evaluation report will focus on the presentation and explanation of IESD's analysis and findings. While it may refer to data provided by Drexel University's process evaluators, the IESD report will not summarize Drexel's findings.

Jay P. Swin-Luchala

Jay P. Sivin-Abchala, 1ESD

Donna Cooper, Philadelphia Mayor's Commission on Literacy



# ATTACHMENT 5: TEACHER LOGS



## Power Learning Project: Center for Literacy December, 1992 - July, 1993

John Houghton, VISTA Technical/Administrative Support, CFL Instructor (Beginning 5/18/93)

## December, 1992:

Twelve Macintosh Plus computers with external hard drives were delivered to CFL on December 4, 1992, ten days or so after the original delivery date. On December 8, the computers were delivered in turn to the CFL adult basic education class at Nicetown Boys' and Girls' Club (for class selection, see CFL Education Director). After a preliminary demonstration on how to set-up the computers and a very basic introduction to accessing the software ClarisWorks, the computers were distributed to the eleven members of the class. The demonstration on how to set-up the computer consisted primarily of identifying the various parts of the computer (i.e., the CPU, the internal and external disk drives, etc.), and how to connect the CPU to the peripheral parts. Supplementing this was a handbook developed previously by CFL with support from the Fels Foundation. As for starting the ClarisWorks software, the handbook as well as blackboard use generated a list of necessary steps. Each of the learners in the class received a copy of the handbook and took notes from the blackboard. For a number of the learners, clearly distinguishing the start-up or system disk from the ClarisWorks or application disk, and the appropriate drive for each, caused some lingering confusion about how to get started. These issues occupied much of the class time prior to the Winter Holidays break. In all the class met and discussed the Macintosh and ClarisWorks environment and interface five times before the vacation (Many of the learners initial reactions to their new computers are documented in observations they wrote).

Because of the wish to make the computers available over the winter break, some aspects of the introduction to the Macintosh and ClarisWorks suffered from a less than comprehensive and systematic overview - specifically, the presentations were hurried. The class benefited, however, greatly from the use of a Macintosh at Nicetown Boys' and Girls' which was actually the computer intended for the twelfth learner in the program. Those learners who did not attend class consistently split among ability levels, and a couple of the lower level students did not, subsequently, begin using their computers. One student's Macintosh failed to work and several learners' encountered problems with their keyboards. Each of these technical setbacks was immediately addressed by the Mayor's Commission on Literacy. Just before leaving for the holidays, CFL and the learners signed an agreement or a contract setting forth the terms of the project (along with computer serial numbers for insurance purposes). Also, fourteen modems were given to CFL at MCOL on Monday, December 21, the day of the meeting with the independent evaluator. In response to the meeting with the evaluator, CFL submitted a list of questions for the self-esteem, motivation component of the testing.

## January, 1993:

Class resumed on Tuesday, January 5, 1993. Due to a variety of reasons, including hospitalization to employment, attendance on the whole for the month was uneven. Much of the computer class work comprised of responding to individual questions with the exception of introducing additional ClarisWorks functions, such as changing font size. Disk use continued to present trouble for a number of the learners. In particular, several learners consistently opened the start-up disk instead of



the ClarisWorks disk, and would proceeded to open the MacPad communications application rather than the ClarisWorks application. This manifest itself when learners hoped to print their work from home on the printer at Nicetown Boys' and Girls';s' Club. Several learners also ran into difficulty with ending their computer use. In some instances, the system folder or the ClarisWorks folder was dragged into the trash can and erased. The last two-and-one-half classes of January were dedicated to administering the various testing instruments provided by the independent evaluator. On Friday, January 29, at a meeting at Drexel, new start-up software for the learners was distributed.

We continued to experience difficulty with various computer parts and exchanged with MCOL. Responding to lingering confusion about ClarisWorks - i.e., everything from opening the application to editing to saving - a brief step-by-step reference sheet was written for the learners. The TABE test proved quite time consuming even with MCOL's permission to use level "E" instead of the evaluator's prescribed levels "M" or "D". In addition, concerns regarding individual privacy were expressed about the "Self-Esteem" inventory. Inconsistent attendance is lengthening the testing process as well. A side observation on the testing environment - The teacher of this class played down the significance and relevance of the testing in general to the learners, at some points describing the tests as "stupid". (At several points during the writing of this log, I deemed the instructor's comments and/or actions detrimental to the prospects of the project. *However*, when I began substituting for the instructor in the middle of May, I found myself not promoting the project as I thought I would, and expected the intructor would. See notes, June 1 and June 8).

## February, 1993:

More testing during the first week of classes. Again, uneven attendance prevents - because of the presumption on my part that the pre-testing needs to be completed prior to modem use - us from moving along to the modems. Attendance is affected by everything from part-time work opportunities to hospitalization to family members' illnesses.

Several of the learners have explored, on their own, other functions of the computer including copying and erasing files. This has led in some cases to the loss of work and applications and the reformatting of disks incorrectly (In hindsight, I should have "locked" those items). Several learners discussed family members' interest in the computer, particularly children who have had exposure to computers at school. The continued availability of the computer and the printer at the site has been extremely helpful. Learners often request individual instruction time on the computer during class to work out concerns. Also, learners enjoy tremendously the opportunity to receive hard copies of their work. One woman recently made invitations for her son's birthday party, and in doing so, expanded her understanding of the computer and the application.

During this period, I have spent time previewing the CYBIS system and in particular, approaching it from the learner's perspective. This included working through some possible technical difficulties with Drexel, i.e., the "call-waiting prefix." Based on the earlier experience with ClarisWorks, step-by-step reference sheets were developed for the learners.

We finally introduced the modems to a small class of five learners (Thursday, February 18). This group, interestingly, spanned the ability levels of the overall class. The size of the class this day worked well given all the information we needed to cover - the learners were responsible for setting up their own modems at home so the entire process of initiating modem use required review.

Due to external circumstances, i.e., jury duty, the other members of the class received their modems on the Thursday, February 25. The class period, like the previous week's, consisted of walking



through the set-up procedure and then giving everyone a chance to dial the system, sign-on and create a password. Some of the learners found this to be fairly straightfoward. Nearly everyone, though, experienced difficulty in creating a password and checking it as the system requires. The problem lay, so it appeared, in the interaction between the learner and the keyboard. Either the learners held the keys too long or the keyboard was too sensitive. Nevertheless, as with 'locking' the applications, this situation could be remedied by adjusting the 'key repeat rate,' though for each learner.

In addition to introducing the start-up and sign-on procedures, we discussed the layout of the system and educational software. On explaining the route the data followed, one learner exclaimed, "Wouldn't it be great if we could move that fast?!" I explained to the learners that the courses involved a pre-test, practice lessons, and a post-test. Also, the testing was for no one but themselves and generated the courses and the practice lessons learners might find most interesting. Together, learners took turns beginning the math courseware and seemed to enjoy it. A number of learners stated how exciting this was and indicated that they couldn't wait to work on the system at home. Several of the learners expressed such excitement but also talked about their concerns. One gentleman said he was certainly comfortable about the start-up and sign-on procedures but needed someone at home to read the various screens with him. One woman said that she would just keep practicing and practicing, trying and trying until she learned it. A side observation - during the description of the courseware, the skill level of many of the introductory exercises was, essentially, ridiculed by the educator, only to have the learners express interest and excitement about the total experience, whether or not the exercises were found to be simple. I thought it was odd that the criticism was introduced; it became all the more perplexing when the students expressed their pleasure with the experience.

## March, 1993:

The first meeting in March, March 2, continued the introduction to the modem. Over the weekend two students called to ask why they could not access the system. After reviewing the set-up and sign-on procedures with the students, I was not to hear from the learners until class on Tuesday. Both indicated that indeed there had been a mix up in the set-up, though during class we discovered that there was still confusion about the sign-on process. A number of students wrestled with their user name, their user group and their password, often using the password in place of the user name. Several learners practiced accessing the system. Very few referred to their step-by-step sheets; subsequently, many were tentative. One woman said she would stay with word processing until her daughter could help her with the modem. Another woman wanted to review the start-up procedure to access ClarisWorks.

Just a few learners, three, attended class on Thursday, March 4 (weather, doctor appointments, part-time work opportunities). With those that were there we spent the better part of an hour and a half practicing sign-ons and beginning course work. Although they appear comfortable with the basic operation of the system, there still seems to be a fair amount of trepidation—three levels, high medium and low, were represented by the learners present. I've been surprised that some of the higher level learners haven't accessed the system despite expressing real enthusiasm for it. On Friday afternoon, I received a phone call from one learner who did not understand why she could not enter the system. She has two phone lines so she was able to look at the computer while we walked through the necessary steps. Three problems were identified: First, she was using her password when prompted for "user name;" second, she pressed "next" after being prompted for "user group" (the system requires "shift-stop" and states so on the screen); third, when asked for "password" she was using the wrong word. The learner, as all learners in the class, possessed a customized step-by-



CFL/PLP Log, Page 3

step check list, i.e., specific user names were included, but did not use it. Nor, apparently, did she avail herself of the directions on the screen (this woman would rank in the upper half of the class in terms of reading). About half an hour later, this same woman called again because she had exited the system and was having difficulty re-accessing it. The problem, and she identified it, was that she had misspelled her user name and after inputting the user group, received the message that there is no such user name in that group. The system at this point allows the user to either change the user name or change the user group, but the learner did not take advantage of this. I asked her what the screen suggested and she answered that she did not know.

Tuesday, March 9, was probably the most productive day so far. With some eight learners attending more of the pre-testing instruments were completed. Interestingly, one could really sense the bond between the teacher and the learners as they worked through a survey together. She is clearly interested in them and on their side (I mention this only in terms of what affect this might have on the project). The survey, estimated to take twenty minutes to complete, actually required over ninety minutes. In order to complete the survey, the instructor had to read each the questions aloud. After that several of the learners spent the better part of two hours practicing on the system. The woman who called on Friday indicated at the beginning of the class that she did not like the system. She said that the system started her on a different unit each time she signed-on, and that some of the courses and games were not available to her. We spent some forty minutes together and learned a couple of things: When the CYBIS title screen appears for signing-on purposes, she read the number of users currently on the system as the unit number of a course. Subsequently, as the number of users on the system varied she was under the impression that the system was taking her to a different course or exercise. In addition, when she started a game, e.g., bingo, she could not get beyond the first screen. As in other situations, this learner did not read the directions appearing on the screen. Speaking of instructions and directions, another woman, who is also among the stronger readers in the class, recounted her difficulty with starting the system without the help of her grown daughters. She stated explicitly that she had trouble following directions. This woman and three other learners worked on the modem and appeared to be gaining confidence. One man, who has expressed his excitement about computers from the outset but who has missed most of the class time due to part-time work opportunities, really enjoyed his first "official" exposure to the system. He loved the graphics, was thrilled about working on math exercises, and immediately went to the course on computer awareness and the section on computers in the workplace.

Just four learners attended class today, Thursday, March 11. Approximately one and a half hours were spent on modem use and CYBIS instruction. Three of the learners had yet to access the system on their own at home, the fourth was the man described in the foregoing paragraph. One man, who had yet to sign-on and create a password, was anxious to get started because he was hoping there would be plenty of spelling exercises for him. He had to review the set-up of the modem and the start-up/sign-on procedure. The placement test for the language arts course was the first activity he encountered and after some thirty minutes, he was still at it. The wording of the questions themselves caused great difficulty for him as well as the wording of the directions. I told him if he finds this too time consuming and he knows that he wants to work on the first module anyway, than he can just answer randomly and finish the test. He liked that suggestion. The other learners, medium to lower level readers, found the screens perplexing or busy as well - they tried reading every word on the screen, which in most cases is unnecessary and generates frustration and confusion. It must be added, though, that all four learners were experiencing some trouble with their evesight. One man has lost his glasses, another has had the same for as long as he can remember (he's sixty-six) and knows he needs a new prescription, a third man is wearing a pair of glasses he found in a bathroom and says work all right, and a woman has submitted an application (?) for a new pair of glasses with an improved prescription. In general, however, the class went quite well and



each of the learners appears to be growing in confidence and more comfortable with the system. It will take time.

Tuesday, March 16, class was cancelled due to snow. Message on answering machine from one of the learners. I spoke with the learner, a woman who has worked the most on the system to date, and she described several incidents where jagged or crooked lines appear on the screen and her commands freeze, I asked her whether it was possible that someone else in her house may have inadvertently picked up the phone and she said that was impossible since there is just the one phone for this line. She expressed a great deal of frustration commenting that her house is very busy, an extended family living together, and when she does reserve the time to use the phone line, it is awfully defeating to have the system freeze on her. Her voice hinted at reaching the point where she could not continue. I asked that before the next class would she try the system again to see whether it continues to interrupt her. She said she would.

ClarisWorks very much but has only used CYBIS when one of her grown daughters is at home to assist her. She is the same woman who has expressed difficulty following instructions so we spent some practicing the sign-on procedure (this is a learner who will most likely benefit a great deal from the revised sign-on software). Otherwise, she is very excited about the available curriculum. The other learners, also a woman, has used her computer sparingly, though she has recently asked more questions. Today, I spent forty-five minutes with her reviewing ClarisWorks briefly, so she could reformat a document, and practicing CYBIS. By the end of class, when the other woman was working on CYBIS, she provided many directions and exhibited a fair amount of confidence. During the use of CYBIS today at Nicetown, the screen was interrupted three separate times with same symptoms as those described at the one woman's home. I thought at the time that this was just interference, but at the monthly meeting, attended by the representative form IMSATT, I was informed that those type of disruptions should not occur. I related CFL's incidents to Drexel via p-note.

Also, at the monthly meeting, it became quite apparent that CFL needed to address the issue of learners' use of the computers. Unless the situation changes dramatically in the next few weeks, several of the learners will clearly not satisfy a minimum requirement, whether it is three hours or six hours. This issue of a minimum amount of time was not included in the contract CFL signed with its learners - really, the attendance provision was aimed at the participation question. Nevertheless, this, the issue of the twelfth CFL learner, and how long CFL will continue the project were issues I placed in a memorandum to the educator and the supervisor. Listening to the others at the monthly meeting, it is clear that greater structure - dedicated times to be on the system as a class, positive reenforcement - enhance the use of the system. I will introduce some of these into the program starting next week.

Tuesday, March 23, started out as potentially an important day. Although I was prepared to *race* ahead to additional features of CYBIS, e.g. term-talk, term-ask, I had hand-outs ready, I was moving too quickly. Of course, the issue of minimum time was first and foremost. The teacher made an excellent suggestion whereby the learners experiencing difficulty could be paired with learners more comfortable with the system. Furthermore, if it came to pass that one or two learners relinquished their computers, the teacher knew of the possibility of more learners joining the class. The issue of minimum time was broached with the seven learners who attended class, and an approximate solution was sketched. One woman would try, for the time being, to work on the system with her son-in-law, who is also in class and who is furthest along. She said she would also try to work with another woman who has ventured a little on the system with the help of her grown daughter. The woman who called last week describing system problems returned to class today and had not tried



CYBIS since our telephone conversation. She had out-of-town guests and had to use her computer table for other purposes. She explained that the situation at home was not working and wondered if she could use her modem at the class site instead. The teacher and I agreed to that arrangement. If it is at all possible, we will try to keep a Mac with modem at Nicetown. Continuing with the partnerships to improve the use of CYBIS, one man, who understands the mechanics but has difficulty with the reading, will be paired with a woman who said she twill try to visit his house weekly and work with him.

It was learned that two woman have been sick, explaining their absence form class. One case is particularly serious, hospitalization for heart trouble, and this presents a tricky situation. No one is present at her home to allow us to retrieve the computer. We'll have to wait and see how this develops.

During class time, two women worked on the system, the one who experienced trouble at home and one who hadn't accessed the system as of yet. The latter woman is a high level reader and we worked together through some lessons. She also went through a period of illness and on top of working, cares for her mother who is a stroke patient. The question for her is whether she will be able to set aside the time. The second woman, who has used the system at home quite a bit, talked about how slow the response time was when she selected commands and/or answers. Several times, she would press "Next" twice or more and end up some place other than where she intended. She also went directly to the exercises, instead of taking the pre-test, and then became frustrated with the quality of the lessons. We talked about taking the pre-test and she found that it made sense to do that first. Finally, several learners are still having difficulty locating a place in their homes where they can place the computer with the modem. Extra long phone cables seem to be the answer.

The momentum generated during the last week or so appears to continue, Thursday, March 26. I don't want to jump the gun and become overly optimistic, but the utilization of the computers now looks to be a more important priority among all. New relationships or partnerships are taking shape, with the man who has difficulty reading the screens pairing with another man instead of the woman as originally planned. The higher level woman discussed in the previous paragraph was anxious to practice starting CYBIS; went through the procedure with ease; and made an informal arrangement with another woman in case she required some assistance. This "collaborative learning" really has energized the classes interest in using CYBIS. It will be interesting to see whether or not it develops. I've held off on distributing the material concerning "term-talk, term-ask" because I think these very basic and yet essential ingredients need to time to activate. If a primary goal is for the learners to become comfortable with the general operation of CYBIS, so that they may use it, then what must happen is not necessarily linear. As soon as the entire class is comfortable with CYBIS, I hope that we can use the notes files to actively engage each other about our thoughts of the project.

In class, three women and two men used the system. I am fascinated by the process unfolding, particularly when the learners demonstrate an almost unconscious facility with certain Mac skills. A number of times over the last month especially, and this means the better part of two months since we began, the learners have displayed a genuine confidence working with their computers. I am starting to see an inkling of the same with CYBIS, after approximately a month. Perhaps in another month, they will be as they are with Mac skills. Time and patience.

I was unable to attend the class on Tuesday, March 30, due to a site visit at CFL Headquarters by the ACTION Office. However, the instructor called me early in the afternoon to report on what took place during class. Let me go back for a minute. On Friday evening, March 27, I received a couple of phone calls from one man who, as of yet, has not accessed the system at home. He told me that



when he "double clicked" the CYBIS start-up document, the screen returned that it could not find the modem. We talked about the set-up of the modem and he said he would try once more. When the instructor called me on Tuesday, then, she reported that the man and three other learners were unable to access the system from the class site. They would make it through to the password prompt, but for each of the them CYBIS would not accept their password. I called Ben and we both tried logging-on with the man's sign-on and we were both able to get through. That night, this same man called me and said he still could not access CYBIS, that he received a voice message indicating that the call could not go through at this time. I immediately asked about call-waiting thinking that the "\*70" prefix was the cause. He has call-waiting but his phone is also a rotary phone. So, we needed to change his network start-up, but as I learned on Monday, it was not merely a matter of clicking the pulse radio dial instead of the tone radio dial, but we needed to replace the "\*70" with "1170." We began to make these changes when he decided that he wanted to wait until class on Thursday. I was aware of the "\*70," "1170" switch because a woman, who has a rotary phone, called me on Monday and we arrived at this solution. This, by the way, is the one of the learners who back on February 25th expressed such enthusiasm for the system. Between that last week in February and now, her father has been quite ill and she hasn't had time to set aside for the computer. Since Monday, though, and this is certainly a case for patience, she has spent nearly six hours on CYBIS - more time than anyone else! As for the passwords not working, Ben called me this morning with no further information regarding the possible cause.

## April, 1993

I've been waiting to introduce additional features of the system, everything from personal notes to term-talking. Many of the learners, though, I would say six out of ten, are still not entirely comfortable with the sign-on and the general operations of the system (Drexel suggested this morning that I go ahead and introduce new topics with the idea that it will take some time anyway). A couple of learners, today when we working together, expressed confusion about the various commands, particularly when and when not to use shift with a command, how many times to press a command (for instance pressing or clicking twice) and for how long one holds down a command. This last action, holding down a key, created a great deal of trouble during a placement test one woman was taking. She would hold down a key for longer than necessary and the system evidently counted the time as a certain number of keystrokes and change the answer back and forth. Two men also worked on the system during class time. The man who was experiencing the difficulty at home due to the rotary phone selection and I worked together altering his start-up document, including using the latest "Intelligate5" commands. It worked fine at the Boys' and Girls' club and hopefully, he will be able to access the system at home. The other man is the one who wants someone to assist him in reading the screens. We spent the better part of an hour completing the placement test for basic reading. He really demonstrated that if he received some assistance with the reading, he not only wanted to spend time on the system, but that he was very capable of answering the questions. The degree of separation is so slight.

The woman who worked on the system for so many hours earlier in the week has called me twice this morning, Friday, April 2. She is working at another woman's house to help that woman get started on the system. Both women are strong readers; the woman being assisted, the same woman whose mother is a stroke patient. Anyway, they ran into a situation where the computer kept trying unsuccessfully to dial CYBIS. I suggested that they double check all of the cables and try again. They called back some fifteen minutes later having connected with the system. The problem they discovered was an adaptor at the phone jack. They removed the adaptor and connected the phone cable directly into the wall and it worked fine. They quit the system after just a few minutes because it was so slow. They would wait until after business hours to use the system.



The April 6 class meeting followed along the same lines of previous sessions. The man who needs assistance reading the screens and I worked together on the system for some forty-five minutes. He still plans to use the system at home, although up until now he has needed an extra phone cable to connect his modem from his living room to the open jack in his basement. The woman who lives in the extended family apartment and plans to access the system from the Boys' and Girls' Club is lending her telephone cable to the man. I was out of town for the April 8 class.

Few people accessed the system over the Easter weekend. One man, the man who experienced trouble connecting from home at the end of March, used the system quite a bit which is encouraging. He expressed a real interest at the outset and it's gratifying to see him at least be able to explore his expectations. The woman whose father was ill and did not starting using the system until the end of March continues to be a strong user logging several hours per week. It should be noted that in addition to caring for her father, this woman works night shifts at a nursing home sometimes working from the late afternoon until the following morning. The very fact that she makes time for the computer, usually from midnight to three in the morning, is really impressive. A couple of other learners signed-on but did not stay on the system in the way the aforementioned man and woman.

Classes for the week of April 13 did not include actual time on the modem. Several learners had questions, ranging from a malfunctioning keyboard to how to exit a course and return to the "Main Menu." Four women scheduled time on a Wednesday afternoon to meet at one home to work on the computer. One is the woman who has spent the most time on the system in the last month and the others are anxious to work with her. This woman, as it was mentioned earlier, is one of the two strongest readers in the class. I learned on Thursday that they spent approximately an hour and a half together and one woman told me that she planned to schedule a regular meeting with the more advanced woman. On Thursday, April 16, two learners and I attended a MCOL gathering with representatives of Bell of PA and Bell Atlantic. In all, there were some eight learners in attendance. It was quite apparent that the other learners were generally more familiar with computers interestingly, I learned during lunch that the woman who has progressed rapidly in the CFL class has a computer of her own at home - and were in higher level classes, i.e., most were preparing to take the GED. The other learners also talked about how they have used the interactive communication features of the system, and I felt badly that I hadn't introduced that yet to the class. Again, I've been waiting for a majority of the learners in the class to achieve a certain level of comfort. It is definitely time to go ahead and introduce the material, not because of the comfort level but merely to let those who want to, go ahead and try it, and also, perhaps, as a motivator for the others. One final note, we continue to wrestle with the requirement to have a full twelve learners participating and to have those learners using the system on a consistent basis. The educator has invited me to talk to the class next Tuesday on the issue of "use."

For Tuesday, April 20, I was prepared to level no holds barred with the learners about system usage. The instructor and I spoke about the necessity to do so and she felt it might be better to come directly from me. I agreed, but when I arrived for the class on Tuesday, she had already started the discussion with the class. Actually, her comments were in conjunction with overall goals for the class, i.e., reading, writing, etc., for the next month. The instructor was reviewing the time spent by each of the learners as recorded in one of the system's files. Unfortunately, the file to which she referred documented system time in the learner's user group and did not include system time in a given exercise. In spite of this, it was agreed that if in the next two weeks the computers were still underused, then it would be time to allow other learners to have them in their homes. Two of the women, who have worked together in trying to master the system, recounted experiences where certain commands were not working for them. In particular, they were having trouble with the



CYBIS command "ANS." They and the instructor wondered if something was wrong with the system since it allowed them to do everything up until that point. I understood that some system software was causing troubles with keyboards and I figured if indeed they were pressing the correct combination of keys, then that might be the source of the problem. In class, it was soon discovered that both women were using the wrong combination of keys. In fact, what they did was hold the command and shift keys down and then press the letter choice of their answer. The women learned the appropriate combination and practiced in CYBIS exercises. One woman had to refer constantly to the CYBIS command key for each question and answer. She also had difficulty recalling easily what needed to be done after she answered each question, namely press "Next." This is the same woman who commented on her difficulty following directions at the outset of the project. The other woman, interestingly, asked if it was possible to communicate with other members of the class over the system. I felt as though I had this enormous pressure relieved. For weeks, I have toted a folder full of instructions on how to use the communication features to Nicetown only to encounter a slew of much more basic questions. I jumped at the opportunity and immediately described to her the the general concept. Then, I gave her the guidelines I had written and told her that maybe next week we could test it between CFL headquarters and Nicetown. An aside: The courseware and classroom work have not been integrated at all, and I have to think this has been a real drag on subsequent system use. This and the class structure: The full spectrum of skill levels, uneven attendance, and an open curriculum.

For Thursday's meeting, April 22, the class had a guest speaker, after which some time was spent on the system. Actually, between this class and the last, on Tuesday evening and on Wednesday, I had two experiences with learners. On Tuesday evening, during my regularly scheduled system time, a learner from CFL was on for the first time. The learner was the same woman who asked about "term talking" in Tuesday's class so I thought, just maybe, she might respond to the paging. I tried but she did not respond. It was possible that she was away from her computer so I checked in several times over the course of the next hour without an success, and oddly enough, for the entire hour she never left the user group. The cynic in me wondered whether this woman merely turned on her computer and signed onto the system in response to the instructor's earlier comments. The other experience involved a telephone call I received at work on Wednesday. The woman calling remains somewhat of enigma for me. Quite comfortable with the system, s she demonstrates in class sessions, she repeatedly states that "today" will be the day she goes home and works on the system. It hasn't happened yet. Anyway, she called because she could not find the CYBIS folder when she opened her start-up disk. Rather, she related to me what was on the screen: the system folder, MacCYBIS Help, and MacCYBIS. No "Power Leaning" document. In her words, "the computer did something." She asked, "Why did the machine take it from me?" I tried explaining that the computer was not really doing something to you, in the sense of against you, which her tone of voice clearly indicated. I told her if she brought her disk to class on Thursday, I would fix it. She said fine, and I thought, "an opportunity missed."

In class on Thursday, after the guest speaker, several learners and I worked on the computer. One woman, the higher level reader whose mother has been ill, was still having difficulty operating the system. The CYBIS commands, in particular, were giving her trouble - when and when not to use the "ANS" key and when the command key was required. For instance, in selecting an option from one of the menu screens, she would hold the "command" key in conjunction with the "letter" key and thus void her choice. That was quickly cleared up and then one man, who needs assistance reading the screens and who is eager to use the system, worked on the computer for some twenty minutes. He really enjoys the system and does quite well when he receives some assistance in reading the questions. The last computer activity involved fixing the woman's disk who called me on Wednesday at work. The problem was that the CYBIS folder and the "Working Power!" document



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had been separated from MacCYBIS and MacCYBIS Help, and dragged into the "System" folder. After the disk was reorganized, she indicated that now, she would start using the system. One other woman, a woman who had been in the hospital for the better part of February and March, received her first exposure to the set-up. Although she may have been there for one of the earliest modem sessions, certainly, some six weeks or so had passed. Before accessing the system with her, I wanted to make sure she was comfortable with the physical set-up. We went through it together and she sounded quite confident about it. After that we reconfigured her system start-up document so that she could access the system directly.

Tuesday, April 27, was largely a lost day. The phone line was dead at Nicetown so we were unable to access the system. Something I did come across during the time we spent checking people's disks - a number of learners reported they were still experiencing trouble starting, and the only problem I could check immediately was the system start-up document - was that most of the learners left the CYBIS folder window open when they turned off their computer. Honestly, I don't know whether they select "shut down" or not from the "special" menu before turning off their Macs. Anyway, leaving the CYBIS folder window open returned them immediately to the point where they could simply double click on the "Power Learning" or "Intelligate" document and access the system. When I first transferred the new "Intelligate" software to the learners' disks, I left the original "Power Learning" document in case the new start-up document did not work. I told the learners about this but evidently a number of learners continued to use the original document and encountered difficulty logging-on to the system. This time, I erased the original document so there would be no confusion.

For the remainder of the class, I worked with two women. The first is a woman who just in the last month or so has rejoined the class on a regular basis. She is a fairly strong reader and the system shouldn't present her with any extraordinary difficulty as far as reading the screens. However, for whatever reason, she has not spent the time learning the beginning steps. When we discussed her experiences with IMSATT, she told me that her disk was not working. I understood that she was still working off the original start-up document. However, when we initially tried accessing the system, before realizing the phone line was dead, she told me that what was happening on the screen was what would happen to her. Then, when I discovered that the line was simply dead she kept telling me that the phone bill needed to be paid. I assured her that the agency paid the phone bill and generally, to be honest, became impatient with her "explanation" for everything. I reminded her to bring her start-up disk next class and I would change it to the "Intelligate" document. The other woman, the woman who spent the better part of February and March in the hospital, was interested in reviewing the set-up one more time. We walked through the various connections and came across a trouble spot inserting the modem cable into the back of the computer. The end of this cable is the same as the one for the printer port and we spent approximately twenty minutes practicing the action of lining up the end and carefully sliding it into the port. She would consistently lift the end to a 45 degree angle and try to force the connection.

Thursday, April 29, witnessed more time with the aforementioned woman and another woman who had been helping her outside of class. They had some questions about the former's modem believing it did not work. They had worked together to access the system and the conclusion was that the modem was somehow broken. The modem was fine and the women vorked on the system for the better part of an hour. Actually, this was the one woman's first true experience with the system and she managed it well for the most part. She did have difficulty with how the format of the questions, i.e. multiple choice and that selecting option "a" did not mean you wanted to place an "a" in the given question's blank. That type of 'mechanical' question popped up repeatedly as well as trouble she had reading the various questions. As far as the woman's modem not working at home, I could only think that something was improperly connected. The woman did mention that she does not



have long distance service, but I asked Drexel who said that should not be the cause of her problems. Each class meeting, the time, by and large, when the learners relate their experiences, drives home the reality of the project. It is really unfortunate, to a certain degree, that, up to this point, the project has been mostly about the learners and their reading levels and not about the system and the available courseware. The learners truly appreciate the opportunity and the experience, though.

May, 1993

The class on Tuesday, May 4, began to resolve some of the outstanding administrative issues of CFL's participation in the Power Learning Project, primarily the requirement of a minimum use of the computer. One woman, the one who recently rejoined the class, is a fairly strong reader and has yet to use the system, told the instructor that she will return her computer because she felt she just wasn't going to spend the time with it. Another woman, who lives with extended family, spent the most time on the system in the beginning, and turned in her modem some weeks ago - I was under the impression that she decided to keep it which means I have to locate the fourteenth modem, thought she could keep the computer eventhough she was not using the modem. The instructor informed that that was not the case so that computer will be returned as well. Finally, before I arrived at class, the man who requires someone to assist him in reading the screens told the instructor that he was ready too to return his computer. He cited a lack of time. So, after some three months, the number of users stands at eight. The good news was that the woman who repeatedly stated that "this was the day" for her to access the system actually tried the night before. She complained of some interference in her screen, mainly words appearing over words. We tried the system together and she began by doubling clicking the application icon instead of the "Intelligate" document. That was corrected, though I don't think that was what she was describing because she worked in a lesson. Anyway, the woman maintains she has trouble following directions watched as the two of us worked through the system and then the first woman worked in a lesson. The operation of combining the command key with the first letter of a screen command is still posing a great many problems. Constantly, the women would battle with what to do next, which is a totally different problem, and what keys to use. The learners have the quick reference chart explaining the various commands, and yet, there is something holding them back. I spend a fair amount of time observing the group in the classroom, before we work with the computers, and the same type of questions and problems arise. Relatively simple math operations will be reviewed, for example, and when the classroom instructor asks for the answer to an example - let's say "10 x 12" to demonstrate the rule of multiplying by ten - even after they have performed numerous problems, answers will be thrown out with a near reckless abandon. The instructor's jaw will drop, her eyebrows will furl, and she'll ask how that can possibly be. The response, almost unanimously, is, "It's easy when we do it with you, but when we leave here, we simply forget it." It, of course, is not a matter of physically leaving but separating from the teacher in the most elementary sense. This is precisely the response I receive when reviewing the CYBIS system with the learners. I have to inquire about this.

Thursday, May 6. Unfortunately, and actually some two weeks ago, I learned that the woman who spent so much time on the system in late March and early April has a family emergency and has been unable to use the system. Her father, who lives in New Jersey, had his second stroke and so she needs to attend to him. In-class computer time was dedicated to working with the woman who spent the better part of winter in the hospital. In spite of her long absence, she remains very enthusiastic about participating in the IMSATT project. For this reason, the instructor and I decided to exclude this woman from the 'deadline' on computer use. I worked with her for approximately an hour, and she appeared to enjoy very much it as well as learn a great deal about the system. Working in the basic math lessons, she found the number line a particularly interesting tool for answering addition questions, remarking, "That's really clever." In fact, it was quite enjoyable for me to watch this



woman truly appreciating the resource and its potential. More so than most of the other learners in the class, she has appears to have this genuine interest for the computer and the system - whether she will become comfortable enough to use both independently is a question for me. I think one's best guess would be that her skills are not at a level necessary for IMSATT; but after seeing her in action today, I am beginning to rethink that prediction, very happily.

After class, I picked up the computers from the two learners who decided to end their participation in the program.

Tuesday, May 11, had just a handful of learners at class. When I arrived, the man who needs assistance reading the screens told me of some difficulty he encountered. The message on the screen, he copied it for me, read, "File busy or application missing." The learner and the instructor asked me about the possible causes, and I told the learner and then the instructor that in all likelihood it was a matter of "selecting" something other than the "Power Learning" document. After the period of regular classroom instruction, the learner and I worked on he computer and we discovered that when he started, he was not opening the disk. I should have asked him what he did, rather than just have him tell me, "he didn't do that." After we opened the "Power Learning" document everything went smoothly, albeit I had to read most of a given screen's content. He has certainly increased his reading skills, though.

The other part of the computer time was spent with the woman who has been ill during the winter. She came to class with her modem because she said it wasn't working properly: the lights, in her words, "the eyes," weren't working. We used her modem together and it worked fine. An observation: There seems to be an inherent antagonism, almost, between the learner and the computer/system, definitely, and their studies in general. With the computer/system, to use a computer term, there is almost a default set at "something is wrong with the machine" when they come across problems - the instructor often follows this line of thought as well, though I don't know if that is what she thinks or if she is merely trying to be supportive of the learners. It strikes me as completely antithetical to a problem solving process. I see it extend to their studies in general when they have trouble with spelling or with math. The response, more often than not, is an attacking, not inquisitive, "Why is it done that way?"

Thursday, May 13, was the last class before a summer vacation for t. e instructor. A number of the learners talked about the difficulty they were having with knowing what to do when faced with different situations on the system. One woman recounted how she had no idea that she was supposed to click pictures of items to move them in a math counting lesson. She wanted to be able to ask someone a question. I told her to use the "term ask" feature, but no one in the class is making use of it. When we actually got on the system later in the class, with several other learners watching, I had to assume the role of navigating them through the process of the lesson - when to press "next," when to type a number, when to watch the example. Unequivocally, the single greatest obstacle to more use, excluding personal commitments, is the sorting out of the various messages on the screen. Time and again, learners describe a difficulty subsequently related to missing the system directions. Or, if the procedure for answering a question changes, the learners are essentially paralyzed. For the most part, they will not venture a guess at hitting return.

Tuesday, May 18, was another small class with just five learners attending. It was also my first class as instructor and I was anxious to develop, in conjunction with the class, a broad framework for integrating the various goals of the class, which I see as reading, writing, and math, with the available resources, which I consider are books, periodicals, computers, guest speakers, cultural institutions and the learners themselves. I haven't spent as much time thinking about it as I need, but hopefully,



over the next two weeks, we can develop a rhythm - one where expectations are formulated and worked towards. This first class for me was largely a feeling out process and although it wasn't marked by wild celebrations, I felt that expectations were starting to be formed. As for the computer project, hope to identify specific modules at the end of each class that will supplement in class material. Today, one woman, the one who had so many times said she would start using the computer, told me that, "whatever level I had her at on the disk was too difficult and she wanted it changed." I tried explaining to her that it was up to her, really, to choose the course and the level, as far as the most basic ones go. When we worked on the computer later that morning, her troubles were about reading the screens for directions. She had been in the first module of the basic math, I think it is concepts of addition, and she could clearly handle the questions. However, when it came to what she should be doing as far as the system is concerned, she was almost completely lost. She would type answers when they were not asked for and then wonder why the system would not advance, though the system wanted her to do something like press "next." In each situation like this, I try to underscore the importance of finding the capitalized command, usually located at the bottom of the screen.

The MCOL monthly meeting is Thursday and we still have assessment material outstanding. I think it is interesting that a large portion of that outstanding material includes the writing samples I asked the instructor to administer to some five learners. Because the learners had a writing sample earlier, they told the instructor they had already completed the latest one, and she assented. I find this interesting in terms of what one might describe as "the line drawn in the sand" - I've witnessed this with the technology, with the assessment material, and even the regular curriculum. For whatever reason, a perspective has been adopted, a perspective very much defined by the learners. This makes me a little apprehensive, a little wary of "learner driven (learner centered?)" education.

Thursday, May 20, was a day consumed, in large part, by the outstanding assessment material. With just a handful of learners attending class, I was unable to complete that task, and with those who were there, the assessment - in this case the student self-assessment - took the better part of an hour to complete. I had to remain in the classroom with one woman who needed to finish some other assessment tools, but three of the learners decided to go work on the computer. One woman, the woman is one of the strongest readers in the class and has yet to spend much time on the system, had called me the previous day with questions about accessing the network. She told me that whenever she tried to connect, the system would ask her for her password which she would give only to have the system declare it incorrect. Without knowing the exact status of her disk, I assumed that it still had the original "Power Learning" document on it and that was what she was opening. I asked her to look for a newer version of the document, but again - and I should have been uniform with the disks - I was unsure of the precise name. In class on thursday, she told me she was receiving the same message. With the two other learners, she decided to see whether they could figure out the problem while I remained in the classroom. It was great that the learners were determined to have a go of it - from setting-up the system in the Nicetown office, which I normally did, to addressing the one woman's particular question. When I asked whether they wanted me to help set-up the computer, the two woman, one who is a relatively high user of the system, said "yes" while the man who needs assistance reading the screen said he could do it. I was glad that he was confident and that he had the opportunity to demonstrate his expertise. After a half hour or so, the woman with the question returned to gather her things before leaving. She told me the problem was clarified; she was opening the original "Power Learning" document and not the new "Intelligate" document - that was my fault for being inconsistent across the learners' disks. A little while later, the class decided to turn to math and I went upstairs to see whether the two learners wanted to join us. They told me that they would continue to work on the system. Despite the gains made, I was frustrated that after a week of class I hadn't integrated the computer curriculum into the classroom curriculum. I almost feel as



though for whatever reason the topic of the "computer" has become identified as a negative issue for the learners. That would certainly be a terrible development, but between the assessment material and the discussions of computer use, the topic has taken on an almost chore like quality. I think, though, that on an individual basis many of the learners still view their relationship to the computer in a positive, educational light. A challenge for me is to redefine the topic in the context of the class and the curriculum.

The week of May 18 included the search for additional learners to join the program. Two longtime CFL learners were asked and both said yes. Both, I might add, are already Macintosh users, though not extensive users. I was scheduled to meet with both of them on Wednesday, May 19, but just one showed. He is in his early sixties, a veteran who spends a good deal of time at the VA hospital and with his church. He has had a remarkable life and is currently meeting with a volunteer tutor twice a week. On that Wednesday, the computer and modem were transferred to the man, and we scheduled a time for early next week to work on the system together at his home.

On Monday, May 24, I spent approximately three hours with the new member of the project. He seemed to pick-up the system very quickly. In addition to acclimating himself to the special commands, he expressed very little, if any, frustration with the layout of the screen. In spite of his relatively strong reading skills, he emphasized that he would work on the system when he regularly met with his tutor so she could assist him with some of the reading. He also explained to me, and reiterated several times, that he had a number of other commitments, especially related to the VA hospital and assisting medical researchers as a subject, so there would be periods when he would be unable to use the system.

Rather than realizing the goal of greater computer involvement in the class, it seems we are heading in the opposite direction this week, May 25. Although three or four learners still use the system one to two hours per week, a general apathy has set in concerning the computers. I assumed the lead of the class just last week and in effort to make the class meetings as meaningful as possible to the learners, I've restructured or structured the class in response to their comments. Instead of a free-flowing, open-ended format, we've adopted a defined schedule of study with explicit components. The learners have responded very positively to the new schedule, but the effect has been to direct energy toward the format and away from the computers. On Thursday, May 27, a CFL coordinator in West Philadelphia notified me of a learner who would be interested in joining the computer project. Actually, the evening before, at a community party in North Philadelphia, a CFL coordinator introduced me to a woman also interested in participating the project. So, after some six months, it appears as though we will finally have a full group in the project. I scheduled to meet with the learner from West Philadelphia on Tuesday, June 1.

Weeks of June 1 and June 8: I'm not sure what it is and it makes me want to reconsider any and all severe judgements I passed on the previous instructor as far as integrating the computer into the classroom, but I find myself, now in the role of the instructor, avoiding emphasis on outstanding assessment material as well as even how much time is being spent on the computer (See notes at the end of January). I know from a cursory glance at the system records that at least three, maybe four, of the learners are not using their computers at all, or at least, not accessing the system. Two of those learners, in all honesty, probably cannot work on the system without assistance. The other two I have in mind are medium to high level readers in the class and talk often of going home and using the system, but almost never do. Nevertheless, I have invested so much of myself in the success of the class as we've redefined it that I not only fail to allot time to work on the computer, I consciously/subconsciously avoid a wholehearted discussion of the topic because of the tension associated with it. I am not sure if this underlying tension contributed to the first instructor's



response, but I find myself experiencing this transformation with assumption of leadership duties in the class. If I had to venture a guess about the forces shaping this tension, I would say two are at work. One, the nature of the class, open-entry/open-exit adult basic education, places the instructor in somewhat of an appeaser role. Not entirely, mind you, but to the extent that one hopes to retain learners, which is not a slight consideration, caution is the preferred strategy. In this situation, it became evident early on that the learners were having difficulty with the system, thus the project, and as a consequence, the project and its attendant components, i.e. assessment, were viewed as unpleasant, eliciting the instructor's reaction. This captures the second probable force at work, namely the learners being overmatched. Because the learners were, by and large, unable to use the system as planned, a certain degree of tension naturally arose. Anyway, from my perspective, this is the prevailing situation in the Nicetown class; now, I have to figure out how to diffuse (?) it.

On Tuesday, June 1, I met with the new learner referred to me by CFL's West Philadelphia coordinator. I was not able to secure an account number for her immediately so when she came for the introduction, we first reviewed ClarisWorks and then briefly looked at the courseware through my account. This woman has previously worked quite a bit with educational software on IBM computers, so she strikes me as being quite confident and excited about using the Mac. Her primary interest sounds as though it is related to assignments her tutor will give her. She hopes to do that work on the computer - ClarisWorks. Hopefully, after she uses the system a few times, she will find that rewarding as well. I've contacted Terry Martell regarding an account number for this woman, but for the time being, her work will be confined to ClarisWorks.

In the meantime, I tried to keep up on how the new man was doing. This was one of the weeks where his volunteer work with the VA hospital was to take him out of town so I called him at the beginning of the week of June 8 to see how things were going but he was not home. In the meantime I tried to secure the new account number for the woman which finally came on Friday, June 11. On Sunday, June 13, the new woman called to find out what was going on a nd we scheduled a time to meet the following day. At the meeting, which preceded her regularly scheduled tutor session, we again quickly reviewed ClarisWorks and IMSATT. Unfortunately, the service was unavailable all day Monday, June 14, and we were unable to get hands-on practice with the system. When I spoke with this woman on the evening of Tuesday, June 16, to tell her the system was up and running, I was pleased to learn later that she accessed the network that evening for approximately one hour.

During the last two weeks, especially, I and several of the learners have encountered difficulties with the system. Namely, either there is an extened lag on the response time, sometimes up to thirty seconds - this happened to me on the mornings of Tuesday, June 9 and Wednesday, June 10, and in the evening of Wednesday, June 16 - or the system completely freezes leaving no other option than to quit the application. Again, this has happened to me as well as to some of the learners.

When I arrived home last night, Wednesday, June 17, I had a message from the new man in West Philadelphia. He had a question about where to find spelling lessons. After I we spoke, I was really encouraged about the prospects of his use of the system.



# The Power Learning Project - The Center for Literacy January - August, 1993

The Power Learning Project is an eight month pilot program testing home-based, interactive computer assisted instruction (CAI), or "distance learning," for adult basic education. The City of Philadelphia's Mayor's Commission on Literacy, on behalf of eight community-based adult education programs, is managing the Power Learning Project, encompassing 100 adult learners and supported by the National Institute for Literacy, Bell Atlantic and the IMSATT Corporation. IMSATT has a five-year contract with Control Data Corporation to distribute educational software to homes via CDC's mainframe. IMSATT's courseware is the CYBIS system and is a derivative of the PLATO education system.

The Center for Literacy (CFL) will implement the **Power Learning Project** in its class located at the Nicetown Boys' and Girls' Club. All participants in the class are at the adult basic education level, ranging in age from 30 to 65, who have demonstrated their enthusiasm for learning through long and consistent attendance. Twelve students will participate in the project, five men and seven women, and each learner in the class will receive a Macinthosh Plus computer, an external hard drive and a modem for software and courseware use at home.

CFL will begin the project with an orientation period scheduled over six class meetings. During this time, project background, the Macintosh environment, Claris Works and the CYBIS system will be introduced. The material will be presented initially to the entire class after which learners will have the opportunity for hands-on practice. This classroom instruction will be supplemented by a Macintosh user booklet developed by CFL with funding from the Fels Fund. The goal of the orientation is to build a shared and firm foundation for all CFL participants.

The Nicetown class blends whole group instruction with a strong emphasis on individual writing. Within this framework, it is anticipated that the CYBIS system will expand the studying options for individual learners. Accordingly, CFL plans to incorporate CYBIS courseware or material in each class meeting. At the outset, the plan is to focus on reading and to introduce math several weeks later depending on user experiences. This approach allows the project to start without a series of placement tests.

CFL has established guidelines addressing class attendance to insure the continuous use of the equipment. Finally, CFL intends to monitor the program through dialogue journals. Dialogue journals provide a forum where participants can share their experiences and observations. The journals along with the quantitative results should give a good indication of the program's impact.



PLP writeup 4/93

## Dear CFL Learner:

Thank you for participating in the computer learning project. CFL hopes you find your experience with the Macintosh computer and the software meaningful and enjoyable. In order for the computers to be used at home, CFL needs to sign an agreement with you. The agreement makes certain that CFL and the learner understand the terms of the computer learning project.

The terms of the computer learning project are:

- 1. The Macintosh computer given to you on June 1, 1993, is the property of the Center for Literacy.
- 2. You are responsible for general care of the Macintosh computer at your home during the project.
- 3. The Macintosh computer is to be returned to the Center for Literacy at the end of the project.
- 4. The Center for Literacy is responsible for any costs related to the project. These costs include telephone charges to call for the software up to 45 hours per month.
- \* The Philadelphia County Assistance Office will help pay for part of the phone costs if you already receive assistance.
  - Please check here if you receive County assistance \_\_\_\_\_.
- 5. Class attendance is necessary for the success of the project. If you cannot attend three weeks in a row, CFL will give your computer to another student.

Again, thank you for participating in the project and good luck.

CFL	Learner	_
Date		



# The Center for Literacy Questions for the Evaluator/Power Learning Project

Learner Self-Esteem, Motivation Questions:

## Pre-\ssessment:

- 1. Do you use a computer now? If so, what do you use it for?
- 2. Why are you interested in computers?
- 3. What do you know about computers?
- 4. How do you think you will use the computer?
- 5. How do you think learning about the computer will help you?
- 6. What do you think makes someone good at computers?
- 7. How do you feel about using the computer? Do you think it will be easy or hard?
- 8. What will you do when you have problems using the computer?

## Post-Assessment:

- 1. Why are you interested in computers?
- 2. What do you know about computers?
- 3. How do you use the computer?
- 4. How has learning about the computer helped you so far? How might it help you in the future?
- 5. How do you feel about using the computer? Is it easy or hard?
- 6. What do you do when you have problems using the computer?



TO: Anita and Rose

FM: John

RE: Power Learning Project

DA: March 18, 1993

Today, I attended the monthly Power Learning Project meeting at MCOL. The most important issue discussed was learner use of the computer and in particular, the CYBIS system. The project is at a point where a minimum amount of time on the system is a concern—with all of the focus early on directed toward the maximum time, the minimum goal of six hours per week, as stated in the agreement, was shortchanged. One of the original CFL documents had as a goal three hours per week. Perhaps, the difference should be split.

Anyway, it may come to pass that quite a few learners do not attain this minimum during the next month. In that case, a contingency plan needs to be in place, i.e., additional learners need to be identified, available, prepared, etc. Two related issues concern the "twelfth learner" and whether CFL plans to end the project June 30, as originally scheduled, or maintain it for six full months of CYBIS use, as originally planned - that would be the beginning of August. The latter is very much an open question for MCOL and the evaluator, though they would prefer an extension.

Let's find a time to discuss these issues:

- 1. Minimum use of CYBIS
- 2. The "twelfth learner"
- 3. CFL's schedule



# LSH Women's Program Power Learning Project

# Teacher's Log

## Tuesday, January 21, 1993

We began installing computers in participants homes and training them to log on to the CYBIS System at the same time. Although students were trained in advance to use the Macintosh, word processor, etc..., they were unable to learn the log on process to the mainframe because LSH has no open phone line to use for modem access.

We (Meg and I) installed 3 computers on this night and although it was a bit much, everything went pretty smoothly. We began at 6:00 and finished up by 9:30 and were on our way home. The training went smoothly due to a handout which was prepared which spelled out the necessary steps the learner needed to take. However, preparing the handout took approx. 2 1/2 hours of time not covered under the funding for this program.

The only other problem was that the learners had to learn the log-on process using the 1800 number owned by CDC because at this time the proper software from Bell Atlantic was not ready for use. This means that the 3 learners trained this night would have to be partially trained again.

Students expressed confusion on using the modem, they thought they needed to use the modem to use the word processing program and the games. Also, they were confused about the hours they needed to use the CYBIS System(10 a wk.) compared to the use of the word processor (anytime).

# Tuesday, January 26, 1993

Students began the testing and evaluation process for the project. However, testing wasn't completed for several weeks due to: lack of time in one meeting with students to complete all the tests; the writing tests (essays) were too difficult; and a need to cancel classes so that computers and moderus could be installed in participants homes.

# Thursday, January 28, 1993

Students completed the Survey and the Self-Esteem Inventory. Both surveys were too difficult. The study habits survey had too many answer choices: rarely; sometimes; frequently; generally; almost always. My students understood sometimes and almost always, but not the others. On the Self-Esteem survey I had to read and explain at least half of the questions. Example: Question #29: Are you definitely cking in initiative? Students didn't understand lacking or initiative. This was frustrating for students and took much more time than we had available.



1

# LSH Women's Program Power Learning Project

# Teacher's Log

As a result, we were only able to complete one of the writing assignments.

## Tuesday, February 2, 1993

Meg installed computers and modems into 4 student's homes during the day. This installation was very difficult for her (environment, installation hassles). She will comment on this in her report.

Meg and I installed 3 more in the evening. This installation was relatively easy except that the new Intellegate3 software was now available. This changed the training and made it more difficult because it now made the handout partially wrong.

## Wednesday, February 3, 1993

I was bombarded at work (Drexel) with calls from LSH students. They were having mega problems with the CYBIS software and logging on. I told them to meet me at LSH on Thursday at 11:30 and I would check out their disks.

## Thursday, Feb. 4, 1993

Went to LSH today to meet the last 2 student for installation and training. Also met with 2 other students whose disks needed to be recopied. Their system disk was acting up - their keyboard was not giving them the proper letters for the keys they pressed. The installation went well, but I had to do it during Drexel time which was not good. I had to make the time up. I left Drexel at 11:00 am and returned at 3:00.

# Friday, Feb. 5, 1993

Have been receiving numerous amount of calls and complaints from student in regards to logging onto CYBIS. Many are having trouble. Several thought they damaged their disks somehow. Everyone has been contacted and told to bring their disks to class on Tuesday and that I would take them home with me and check them out. (at least 10 calls)

As of Thursday, Feb. 4, all students have the computers and modems installed in their homes and have been trained. All students have logged on at least once, and LSH is the first class to register any logon information.



2

## LSH Women's Program Power Learning Project

## Teacher's Log

#### Monday, Feb. 8, 1993

A student contacted me to tell me the \*70 (call block code) was not working on her phone.

## Tuesday, Feb. 9, 1993

Students took the last Essay tonight while Meg and I compared notes, checked student disks, and tried to figure a way to use the modem from LSH.

## Thursday, February 4, 1993

Arrangements made with MCOL to help LSH distribute the remaining computers fell through. Terry Martell took the initiative to contact one of the students who had a car and asked her for help. The student agreed, but it had to be done during the day. Terry agreed to do it because it was imperative these students get setup and because it was her only alternative. This arrangement, however, interfered with and put a strain on her hours at Drexel for which she had to work overtime to make up. I think it is imperative that it is noted that hand delivering and installing computer and modems into 12 learners homes is very time consuming (something which wasn't given much consideration beforehand). In addition to the installation, students had to be trained on the modem use and logon procedures. Again, doing each student individually took a considerable amount of time. A handout was developed and used during these trainings, but several handson sessions as a class in a lab situation would have been much more effective and less time consuming.

## Thursday, February 11, 1993 AM

By Tuesday, Feb. 9th, most of the LSH group where experiencing problems and in a panic.

•One student was experiencing system bombs every time she tried to start her computer.

•Another student was in tears because she thought she damaged all her disks and during a counseling session at LSH, expressed to her counselor her fear that we would take the computer away from her. She didn't damage the disks, but she did however make at least 50 empty folders, copies of empty folders, and a copy of copy of empty folders, etc..., (all of which had copies of copies inside them) and tried to open more than the memory allowed. She did this on all of her disks. Finally she



## LSH Women's Program Power Learning Project

## Teacher's Log

got so embedded in these folders she was totally lost and didn't know what to do (trying to look inside these folders to make sure I wasn't trashing anything important made me dizzy!). I can estimate that at least 3 hours of her time was spent just making new folders.

•Yet another student complains that even though her disk's auto-signon was scripted to block incoming calls, her phone still rings while she is online. I have no explanation about this, except I've been told by Drexel phone staff that it is possible she actually has 2 phone lines connected to one phone jack and the \*70 only blocks one of the lines.

•The main complaint I received from <u>all</u> the students was that they could get as far as the end of the Bell Atlantic screens and then their screens would stop and nothing would happen. I figured out that you had to type a number 1 and then press the return key to get it to continue. They tried this and still had problems. Upon further investigation I discovered that there are actually several steps to this process that I took for granted: 1) you must wait several seconds for the blinking cursor to appear before typing anything, which they didn't do; 2) once the cursor appears you can then press 1 and return; 3) sometimes the return will not register and you have to press it again. But students were impatient and didn't wait long enough for the return to be accepted and tried to press return 2 or 3 times which interfered with and halted the process.

•Finally, on Tuesday night I decided to collect everyone's disks and take them home with me. At least this way I could try each one as a start-up disk and dial out with it to see what the software problems were. I discovered that at least half of the disks had a WDEF virus on the desktop which could have been the culprit of several of the problems. I worked steadily (3 1/2 hrs.) disinfecting all of the disks (12 students each with 4 disks), starting-up with it again to make sure it worked, and dialing out with it to make sure each learner had logon capability. I also had to check the network access information of each disk to make sure all of the information was correct.

•My experiences with this project have been many. I have been frustrated many time trying to figure out how I'm going to accomplish the many tasks with the students when I only had 5 hours a week with the class as a unit. Especially when we were being pressured by the MCOL to test all the students and install the computers at the same time. Something had to take precedence! Much preparation (2 multipaged handouts and several disk updates) was necessary in addition to the actual execution of the lessons and/or trainings. Our center was one of the lucky ones. We at least had the ability to set all the computers up at once and give several weeks of introduction to the Macintosh and Word Processing trainings. Our major set back was that we didn't have modem capability and couldn't perform these tasks



## LSH Women's Program Power Learning Project

## Teacher's Log

in the lab. However, on Tuesday, February 9, I was able to connect and successfully call out on one Macintosh/modem setup in the lab area. At least now I can ask a learner to show me with her own disk what she does when she logs on and can assess and resolve the problem much more quickly.

#### Thursday, February 11, 1993 PM

I became very frustrated this evening when I couldn't find any of my students logged on to the system. I was monitoring Damarisol and pressed a shift-stop to quit. All of the sudden she disappeared from my list of active students along with Elsie. I logged off and immediately called the students just to keep getting a busy signal. The few students I did contact were still having trouble. Agnes couldn't even manipulate her windows to find the Intellegate3 document to start the logon process. Norma's "p" key doesn't work.

I kept logging on to see if anyone was signed on, and nothing! And then I would log off and call and get a busy signal. I called Meg and she told me to go to bed!

#### Tuesday, February 16, 1993

Came into work today and printed a PHILUSE (stats) list of all students in my group and found out that most of my group was indeed signed on Thursday evening. Called and talked to Miriam today and found out why I couldn't see them in the active users display. Student do not show up there once they enter into a lesson. Once they begin working in a lesson they disappear off this screen.

To find out who is actually signed on and working, use the PHILUSERS file. Also, Miriam suggested using the DREXCDSI notes file so that other instructors can read our troubleshooting mail. This would save time sending instructors mail on problems that have been solved.

Cheryl McIntyre called today and asked what keystroke to use for Control. The Mac extended keyboard has a control key, but the small one doesn't. Miriam wasn't sure and said she'd check.

## Wednesday, February 17, 1993

I figured out what the key problems were. To make an exponent like  $5^9$  in CYBIS you have to first type 5, then press Command-U, and then type the 9. It works just like the Superscript Style in MacWrite II. Also, to make the multiplication sign in a problem like 4x4x4, you first press a 4, then press Command-X and it will automatically make the x for you. Keep repeating until you complete the sentence.



# LSH Women's Program Power Learning Project

## Teacher's Log

It will be Command-/ for division.

#### Thursday, February 18, 1993

This is the first night we're having success! I have 6 students logged on by 7:01. Had a very successful monitoring session with Cheryl McIntyer. She needed to use the Command-X keypress for the multiplication sign. I sent messages to all LSH students to let them know they're doing great. I made phone contact with Lucy, Lillian, Amy and Kathy prior to 6:00. All said they were ready to begin. The only one who actually signed on from those 6 was Lucy. Logged off at 7:30 to call them again. Amy was not home, I left a message. Elsie was not home, I left a message (she contacted me to tell me there was a death in her family and she had been at the hospital.) Contacted Kathy and she was not home. Lillian and Agnes' phones where both busy.

I have decided to ask Cheryl M. to go to Agnes' house, Joyce to go to Lillian's house, and Cheryl T to go to Kathy's house this coming Thursday and help them get on, or to try to figure out why they can't. These pairs where paired according to where people live.

A Drexel student was also on-line and contacted me about a keyboard with a broken space bar.

## Tuesday, February 23, 1993

Tonight I asked the student's mentioned in the previous note to pair up this coming Thursday. Everyone agreed. In the meantime, I had Agnes and Kathy practice on-site. I arranged Agnes' disk so that she couldn't move things around or trash anything. I also fixed it so that when she puts in her disk all that shows is the Intelligate3 doc she is supposed to use, she doesn't have to open any windows. Kathy's main problem seems to be her password. I had her log on at LSH and it worked fine. It finally dawned on me that it was probably her keyboard. One of the keys wasn't registering correctly for her password to go through. I suggested she go home and open the ClarisWorks program and type her password. Whatever letter was missing when she was done was the key that was broken.

We also managed to start the fraction curriculum in class tonight.



## LSH Women's Program Power Learning Project

## Teacher's Log

#### Thursday, February 25, 1993

Kathy called me today to report that indeed it was her keyboard. I told her to call Meg at LSH and report it to her and to try to get it down to her so she can return it to MCOL and get another one. Kathy, Amy, and Elsie were the only students not logged on tonight. Kathy didn't have a working keyboard, and she called Cheryl T to let her know not to come to her house. Elsie called to let me know there were 2 deaths in her family this week (one was a suicide) and that she wouldn't be logging on tonight. Amy is another story. I recommended to Meg last week that Amy should be dropped from the program. On Tuesday evening before class, Meg had a talk with her about her "attendance" and such. Sure enough, she didn't log on tonight. She is not the right person for this project. We should get someone to replace her.

Other than that, everything worked pretty good tonight. Joyce went to Lillian's house and got her started, although she didn't stay there long enough to give her a lot of practice. Cheryl M called to say her son was very sick and she couldn't go to Agnes' house. Not only did Agnes log on by herself, she also sent me a pnote to let me know that Cheryl couldn't come. I was very excited about that.

A lot of students are complaining about getting execution errors when they try to enter certain lessons. It won't let them get in, and it won't let them go past. It seems to be happening mostly in the language curriculum, module P. Also, there have been complaints from Lucy and Norma that their screens freeze up and they can't do anything. Norma also reported that it took her over 1 hour just to logon because the system was running extremely slow. I think this has to do with the number of students logged on at the same time. Ben has reported this to Bell and they are looking into it. I spoke to Bernice Brice (Bell Atlantic) who said that she thought that as long as each student had their own intelligate password that the number of people logged on at the same time was unlimited. But, she said just to make sure she wasn't wrong she was going to check on it and get back to me.

## Tuesday, March 30, 1993

Things have been going fairly smoothly for a few weeks now. Only very minor problems happening like a student getting the flu and not logging on for a week. Tonight was the first evening in 2 weeks that we have held Tues. evening class. Last week, my son Brian was sick so Meg gave me permission to call students and tell them to stay home and work on CYBIS. The week before last, we had a major snow storm which closed the public schools; therefore, LSH also cancels class. However, the students still logged on to the system.



## LSH Women's Program Power Learning Project

## Teacher's Log

March 30 continued...

Tonight I received a few new complaints about the system. Kathy Williams and lucy Colon complained that everytime they choose Math Course from the main menu it takes them directly into the Basic Skills Math, not giving them time to choose GED Math from the menu.

I realized that, with Kathy, she was double-clicking on the main menu selection and the second click was carried to the following menu and resulted in her choosing something she didn't want from the menu. I advised Kathy not to double-click on a menu selection.

With Lucy, however, it was the same problem, but she wasn't double-clicking. She was having trouble with her mouse button sticking which caused the same problem as double-clicking on a menu selection. I advised her to type the letter next to the menu selection to choose it instead of clicking her mouse. This is a temporary solution until we get a new mouse for her.

Both of these students thought that they were entering the GED Math and IT was sending them back to Basic Skills Math! Classes are cancelled next week due to Easter holiday. It will be interesting to see if the students still log on and if so for how long.



## Donna Roush

#### Nuvember 22

There were many hopes expressed during the next step concerning improving employment prospects. I must admit it gives me pause to stand in front of people and pretend to be able to help them make their lives better.

We discussed journal writing and passed out nowbooks and paper for everyone to begin their writing.

#### November 29

Pat took over this class and next week's. She had everyone complete their placement tests.

#### December 1

This week, Pat had everyone complete an incluss writing experiment with a topic assigned by me (Describe Your Favorite Room). Also, students finished up the testing.

\* \* \* Christmas Break \* \* \*

## January 4

First day back. Gave out computers only - no software yet, because copies were not available. Took serial numbers and showed them how to put them together.

We had a great time with the homework assignment, which was to write a description of something you could fit in your purse, and bring the item and description to class. We put the items on the table and handed out the descriptions. People worked in teams and found

the item, then we discussed at what point they realized what they were looking for. We also made charts showing what methods people used to describe (color, size, use, etc.) It was neat to see that some people wrote complete descriptions using only the use of the item and never described its physical qualities, while others stuck to the real, hard qualities.

I introduce the AlM first level assessment method with its five step diagnosis approach.

Best part of class came during individual conferences to discuss writing (Room). I had written comments about everybody's work, including lots of questions to let them know I was thinking about what they had written. Well, to a woman, they took those questions as implication that they hadn't done well. Pat suggested that I explain again about my evaluation approach and define "dialogue" again. Everyone seemed enthusiastic about classroom participation. We chose a topic for writing: "My Dream Vacation." This seemed influenced by my recent vacation.

#### January 11

Heater broke. No class.

#### January 18

Martin Luther King Day. No class.

## January 25

Finally, we get together again. Another day given over to testing, but Ben comes and shows me the system while Pat administers the tests. I am taking the Apple home to try the software out over the next two weeks before I show it to the students.

The software seems rather simplistic and just a tad boring, but that could be my reaction to the subject matter. Everyone seems anxious to get some drills down, so this program should satisfy that urge. Learners getting a little disgruntled



## Donna Roush

about the machines. Also, worst news for continuity is that they have to go through ANOTHER battery of tests that the Mayor's Office decided would provide standardized results. While I agree with the principle, I think they should have waited for the next group, because this is a major interruption at this time. So, we work in a little talk about writing in between the tests.

#### February 1

I insisted on one complete day of teaching to catch us up with where we had been. I introduced the CUBE theory. We constructed the cube, read through the example, and then chose a topic to do orally. After much discussion, we settled on the Inaugaration as a timely matter. We tossed the cube and came up with ARGUE FOR/AGAINST. This topic was particularly well suited to this approach, and we had a lively discussion going about plusses and minuses of the affairs surrounding the Inaugaration. Once again, I was reminded that not everyone will have the same background information available. One learner asked us to stop and explain what an Inaugaration was. I was glad that she felt free to ask.

During topic-choosing discussions for in-class and at-home writing, one student emphatically suggested that we write about men. Everyone seemed agreeable to that. Also, I mentioned that one student was dealing with an illness at home, and that might be a good topic to start collecting their thoughts about.

## February 8

Pat sent letter to everyone requesting that they be here for training tonight. All hell breaks lose. I come into class thinking I just have to set the students up with their own copy of this stuff and give them the phone number. WRONG. Turns out I don't have the right software for them, but

this doesn't become clear until I have fooled with the damn thing for almost an hour. I am so frustrated for them. They have waited so long for the pieces of this, taken oodles or boring tests, and now I can't get it to work. It feels just like my old job, when I had to install unruly equipment at a customer's office, and they had paid thousands of dollars for it. I feel totally incompetent, I have no idea what people are trying to explain to me over the phone, and generally I am pissed. I send everyone home, disgruntled. Maybe I should have ditched the computer part of class right away tonight when it didn't work, but I was totally unprepared for this experience. I had been working on the thing nonstop for two weeks with very little problem. I really felt like I let them down. I make an appointment with Ben for Thursday night - let's hope that's the end of it.

Thursday - Ben shows me the ropes, and I go home and prepare the disks for everyone.

#### February 15

I get most people signed in, but computer quits after that and won't let us past the Bell sign-on. I can sense the learner's disgust, and of course I take it personally, whether I want to or not. Once again, computers take over the night, everyone leaves early, muttering and complaining.

The saving grace comes from Cheryl Freedman, who comes to class too late to witness my self-destructing computer act, but wants to review her writing with me. She has written about her experience with an illness - her brother died of AIDS. She has written a lovely tribute, and the best part is, she said, "I had no idea I could write about things like this. It made me feel so good to write it all down."

#### February 22

Well, just about everyone gets signed on. Suzanne, of course, is experiencing wierd





problems with her computer. Probably just to show up my difficulty of dealing with her! Monica has also run into a wall. I want to use the notes to communicate their problems to Ben. Computer keyboard develops difficulty with the letter T. Therefore, I can't sign on. VERY frustrating.

We do a little in-class writing (those people not busy signing on to the computers) and we work with dictionaries at the end of class to check our spelling. I ask Cheryl if she would be willing to share her story next week and she agrees.

#### March 1

Finally, everyone is signed on. We leave the computers and gather around to talk about writing. Cheryl reads her piece, and everyone seems moved. She also shares a story about her boy who is five and still in the hosiptal, having been a premie. I feel better about the computers, but just as overwhelmed about these women - they all seem to have so much to handle.

#### March 8

A real class! We do work on spelling, then move to in-class writing. After writing, we use dictionaries to check our spelling and two students read their work: Venus and Cheryl, who is quite outspoken about wanting to read her piece! Venus disses the topic of spring (chosen by consensus) to write mainly about waterskiing, which is her favorite sport.

I was a little taken aback when Michelle started the comments with "You didn't stick to the subject." I want so much for this to be a positive experience for people who choose to read their work out loud. But two people pointed out how Venus used spring as a springboard for her discussion of outdoor sports. Sylvia saves the day by pointing out that Venus

APPI IED (a CUBE concept) spring, when we were expecting her to DESCRIBE it. I was so excited that she had made the connection. I must remember to bring the cube into things next week again.

Cheryl wrote about how people are so much nicer in good weather. There wasn't much disagreement with that premise.

The spelling part seemed to bring forth the difficulties of varying degrees of skill, because the good spellers were bured. I will have to think about this.

Suzanne was very negative about handing her work in, and also about her experience with the computer. Pat recommended that I have some personal counseling with her to discuss how she feels about the class and how she can get more out of it. Naturally, I would like to ignore this problem, but I know I can't.

Christina and Carmine and Joan did not come to class, and either did Monica. At least Monica has been doing the computer time. I will have to talk to Pat about this, too.

During the computer instruction time, we learned how to send notes back and forth. That seemed to spark some interest, and I told them I would teach them to talk on-line next week. I cleaned up two problem disks, and now everyone but Christina is formally signed on.

- On Tuesday, I checked the state and Vanessa and Sylvia had been working away on their machines right after class. I was so relieved for them!







## Donna Routh

On Wednesday, Shawn sent me a note about enjoying the class, and Vanessa let me know via a note about a problem she was having.

PROGRESS! Michelle told me (on the phone) that she was getting the NO DIAL TONE message on her modem. I suggested she take the assembly apart and reconnect it, just in case one of the connections was loose.

#### March 15

Well, it was a blizzard. No class. This is frustrating.

#### March 22

Started class with spelling test. Off to a rocky start because people weren't there on time. Reviewed TOPIC SENTENCE with them and discussed what was a good starter and what wasn't. Assigned subject for in-class writing, "What it Means to Have a Computer in my Home."

In spelling test, I could tell that some students had studied, but others totally ignored the task. I'm not sure what to do with these situations.

Topic sentence discussion seemed focused, but not much input from them. I will have to get the classroom time more balanced and include more discussion starters.

Carmine, Christine, Cheryl, and Michelle were missing.

Computer time centered on sending and clearing notes. Also showed Vanessa how to get to the LAB part of the lessons. I really feel I've misguided them somehow - they are not clear on what the computer training offers them.

#### March 29

Made appointment with Ben to talk to us online. What a tremendous response from the group. They loved the novelty of real-time communication, and Ben's silly nature just had them in stitches.

#### April 5

Foiled by the heating system AGAIN! Gave class an assignment over the computer to write about a person who had made them laugh. I am getting notes regularly from Shawn, Vanessa, and Carol.

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#### April 12

Following our heater-interruptus, I decided to forego computers for the night and concentrate on writing. I broke up into a one-room school house and had people working on all different levels of spelling - making flash cards, testing each other, it seemed to work.

We did a fairly intense Topic Sentence exercise in which they had to judge some sentences and decide whether they were good or not. Then, they had to rewrite the bad ones.

Following this discussion, we used the cube theory to write about LAUGHTER, because they said that writing about someone who made you laugh had been really hard.

We also set up times to try to talk to each other on-line. I was the only one who would take on Suzanne, but this turned out to be a blessing in disguise to me, because I got to see her really trying and making a tremendous effort to get her communications right.

Carol, Vancusa, and Shawn tell me they stayed on for three hours talking to each other. I am amazed at the support and pride they have for each other's efforts.

I sent them their assignment over the computer again. They are to send me a topic sentence.

#### April 19

Well, I had a revolution. As more and more







efforts at Topic Sentences flowed in, it became clear to me that we were confusing Title and Topic Sentence. So we had a good review in class and whet over and over it until I think most everybody was clear.

And best of all, Suzanne said, "Gee - maybe if I can get this Topic Sentence thing down, I'll be able to organize my thoughts hetter!" I have been so excited about the strides they are making with their critical thinking.

We learned how to send COMMENTS to the programmers about the lessons. And we all gave Cheryl some pep talks about her need to get on the machine and put in some time. Vanessa was watching her type a note, and she said, "Hey - watch what you are typing - you are leaving out words!" I was glad that she wa reading the screen so carefully.

#### April 26

Tonight I rearranged the class time so that two different groups went down to the computer by themselves. They were really excited about what they learned from each other. Shawn showed everyone how to look at their status reports and how to clean up their notes (a refresher course). Suzanne showed her spelling-bee partner Vanessa how to get into the spelling lessons on-line. I am unly amazed at how they are looking out for each other now, with very little effort from me to get things started.

#### May 3

The topic sentence question continues to engage us. Now we are working at adding supporting detail. They worked together to produce an essay on what constitutes a good student. This was there choice of topics, and they got quite involved.

Once again, they split up and went to work on the machine by themselves. I think they get more animated about what they know if I am not

hanging over their shoulder.

One of the funniest exchanges came when I admitted that I wasn't planning on taking my camera with me on my upcoming trip. WHAT? they all yelled. They made me admit that my refusal to become comfortable with a camera was silly compared to my insistence that they all become competent on the computer. So, I promised I would come back with two roles of film to share with them.

#### May 10

I am in Paris. Sharon, another CWEP teacher, is giving a talk on poetry to my class.

#### May 17

A little jet-lagged, but glad to be here all the same. I got to hear about their petry class. Everyone seemed to like it, even though Carol wrote in her journal that she really didn't like some of the language.

We worked on writing a paragraph about poctry, and Carol came up with a great opening sentence: "The movements the poet made while she read her poems helped me to understand the words more." Everyone came up with some concrete detail, and then we set about making a loosing sentence. I explained that we wanted to rework the idea of the opening sentence, but not just repeat it. Well, Cheryl said "Her movements were like sign language that made me see what the poem was about." I was so excited! This writing is something I would be excited to claim for my own! These women are truly remarkable.

## May 24

My pictures were presented, and I got the stamp of approval, even though I didn't take any with people in them. Last week, Suzanne had just blossomed during the discussion of poetry and she had shared a couple of her own poems with us. This week, the students asked her to repeat

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## Donna Roush

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them, and I was just so excited to see them reach out to her, because I know she often drove them crazy in the beginning.

Some people will be leaving our group in June, and I will be really sorry to see them go. We are probably getting a few new faces. Carol's daughter joined us, and I had some reall sympathy for Carol having to assume a dual role in the class. It gives me some pause about teaching a family literacy class. There will be some ral different dynamics to contend with.





# ATTACHMENT 6: LEARNER LOGS



## Comments from Learner Logs

Notes: These are transcriptions of hand-written responses from the learners in the Power Learning Project. Misspellings and some grammar have not been modified so as to give a completely accurate depiction of the levels of some of the learners.

Marie Smith

I am learning the computer. I am going to conquer the computer.

#### Mattie Blakeney

I enjoy it and leran from my mistake and when I work on my computer neither(?) matters.

#### Cheryl Freeman

It started stating my group number was incorrect, also the F-key doesn't work.

#### Venus Enoch

What I learned. I can use in my class. On all my writing skills. All my sessions that I took on the computer will help me to write better. It also showed me what the author was trying to get across to me. Like what I read and what it was about, the main idea about the topic.

My unusual circumstance was I kept getting the same test over and over. But I found out why. I kept asking the computer to give me the same test. So I took different test one after another. So I could master them. I didn't do too bad.



#### Venus Enoch

What I learned from my test on the computer will also help me in my class. I learned alot on abbreviations, and how to use er, or, ist, ian. Also in the middle of my test the computer told me to press next, to begin another test, and when I did the comptuer took me back to the Cybis and I had to put my name and codes back on the comptuer. I also wrote a homework assignment on my Claris disk.

#### Cheryl Torres

Because I tryed but I could not get through. In the middle of a session I was disconnected, the computer went off.

#### 2/1/93 Lillian Metzcher

Try very hard for everything to work, no way. Keep asking for help, try the control-H. (Hardware) Thought it was computer, not keys, same thing next day. Terry says it should not take a long time. Was upset (Software). Still have troubles everthing mess up, like shift, by steps, not fun.

#### 2/3/93 Cheryl Torres

It showed me how to do prime and composite numbers. Yes I did enjoy it. Because I was confused with the keyboard.

## 2/4/93 Cheryl McIntyre

It was the first time I logged on.



2/4/93 Damarisol Gray

Because it was my first time and it was different even do I got stuck it still was a good experience working on a computer. I was stuck on math about composite and prime. It wouldn't change after I finish my lesson to something else. I wanted to go on but didn't get to.

2/4/93 Damarisol Gray

I did science courses I enjoyed it very much it was exciting to me. I liked that course. I got throw the lesson with no problem and didn't need any help.

2/6/93 Damarisol Gray

Because I logged on at 9:30 pm for social study's it won't change screen got stuck again was very upset turn off computer.

2/8/93 Cheryl Torres

I enjoyed work but at times hit the keyboard and the screen stays. It don't move.

2/10/93 Lillian Metzcher

Still can't do anything. Terry got through somehow, I feel bad taking her time. I can't get it, need to keep trying? Still trouble. I thought I broke it, Terry I call at home upset. Screen freeze very upset. (S) I don't know what it is.



2/11/93 Lillian Metzcher

Because couldn't do anything try try very hard, stop, shut down, read over everything, it's just me. I don't know what I'm doing wrong. It's not fair. Try very hard. Yes try don't know if is computer, or just me, sick, upset. (S) I don't know what it is, me I guess, mad upset

2/12/93 Lillian Metzcher

Keep on for a long time, shut down, read over the papers step by step no luck. Me sick (ony abitter?) I took my time read over, over, don't get it. Don't know why, maybe it's me. (S) Don't know what it is.

2/16/93 Damarisol Gray

Because I worked 3 hours on it and I could continue but it was midnight + was a little tired.

2/17/93 Lillian Metzcher

Because Joyce sheo me, after that I did some myself. My daughter helped me. Joyce came, because Terry asked her to hemp me, she did, it worked ok, it was me. Joyce stay with me, worked on it ok. Her Software work ok.

2/18/93 Harrise Davis

Because it helps me to understand my words a lot more better.



2/18/93 Damarisol Gray

Because I didn't mastered some tests but got through the lessons and learn by doing so. Then I took test again after the lesson and pass the tests.

2/22/93 Linda Fisher

Why I enjoy on my computer is it spelling make me understand mistaes I in spelling and reading and other areas.

2/23/93 Lois Foster

Why I enjoy on my computer is it spelling make me understand mistaes I in spelling and reading and other areas.

2/23/93 Lorenzo Perkins

Why I enjoy it help me work on computer to gete start in my read and write wear I need help in.

2/23/93 Cheryl McIntyre

Because I was frustrated. Because she explained what was going on I had trouble getting the return key to work.



2/24/93 Damarisol Gray

Because I couldn't do the x times sign on exponents I had to stop then later on tryed again.

2/25/93 Chester Burris

I enjoy working with the computer because it helps me a lot.

2/25/93 Pamela Caine

The computer is a joy have in my home. It is a excellant way of learning. We-my children, and my classmates loves the computer.

2/25/93 Cheryl Torres

Because it shows you step by step.

2/25/93 Damarisol Gray

It all screwed up on me. couldn't get it to do what I wanted it to do. So didn't enjoy it at all. Yes, I was dong my lesson, then a term talk came in the picture it was saying hi is Joyce and Lillian but I couldn't get threw to them and everthing got all mixed up, lines upwasrd, so had to quit.



2/25/93 Lillian Metzcher

Having troubles. I didn't get through, don't know. No, then yes was doing pretty good, then frooze. The keys for awhile.

#### 2/25/93 Norma Amil

Once me and Terry tried the new software it did not take me through to the next screen after the one that said welcome back press next. I told Terry and she contacted some people of the program and they solve the problem because after a couple of days it was working very good. I couldn't get to pass a screen where it said welcome back aht then press next but it left me there stuck. Called Terry and we tried a new software over the phone. Where all you do is log on nd it takes you straight through with no problem.

#### 2.26.93 Lillian Metzcher

Very upset Asked for help key but no. Computer was working for awhile, now freeze. Not know.

## 3/1/93 Damarisol Gray

I kept mastering one after another on language art. I enjoyed I was excited about passing many tests. Was taking test I had mastered it and then came on the screen, "Please report the following to your CLM instructor. There is an error in the data returned from CYBIS. Lesson test 2emtest. Earned score is greater than possible score."

#### 3/2/93 Carol Bielawski

I will use these verbs in my WordPerfict or word processing courses. I was in the screen Parts of speech. But the screen was not bringing me out to try again, because I did not pass the first lesson. I shut down because I couldn't even change to the next screen. It also would not accept my password so I had to try over and over again. At least three or four times. I also tried to move the cursor and I was receiving symbols that looked like greek.



3/2/93 Lillian Metzcher

For the first time I was ok on the machine, after months trying but I got it. I don't know why? A little bit. Some, but I got it.

3/3/93 Carol Bielawski

I will be able to use what I've learned in writing class, and in letters and notes that I will write in the future.

I got into Cybis and I forgot to tell my son not to use the phone and I had to start over again, My password worked today with no problem. I keep going back and forth to these different screens. 1. See the objects. 2. Choose another module. Module index (key).

3/3/93 Lillian Metzcher

Keep on trying hard times, just shut down and keep on trying. Don't know why. No, yes, keys again? (S) I don't thing so, maybe the keys?

3/4/93 Carol Bielawski

I worked off and on all dy. I finished up to lesson 60.

Today I think things have went a lot smoother. I seemed to figure things out better. I know the last two days were frustrating to me. I thought there was a problem with the system but I was the problem.

3/4/93 Cheryl McIntyre

My teacher helped me find the right keys. I didn't know how to use the keys to make the symbols on the math assignments.



Lillian Metzcher 3/4/93 Because having trouble again. It was working for awhile, then it freeze, it don't like me. (S) No, I don't think so. 3/10/93 Damarisol Gray I did very well, I couldn't stop, but had to because it was one in the morning. I was doing chemistry. Norma Amil 3/11/93 I got through without any problem and worked on math an I learned alot and really enjoyed it. I really enjoyed this program very much. 3/12/93 Lillian Metzcher Just don't get through. Can't get it. It all died at the (squiggles). I don't know what all this is?

3/13/93 Damarisol Gray

Because I get into Social Study I kept taking same test over and over and it said I mastered but it wouldn't get me out so I signed off.



3/14/93 Venus Enoch

I did enjoy all my work session they were successful

3/18/93 unknown

Because I am learning grammar and I am beginning to understand it much better. It is all starting to fit together.

3/18/93 Cheryl McIntyre

Because there were alot of people hooked up to the computer and it took a very long time for the answers to go through.

3/18/93 Damarisol Gray

I was working a couple of hours on the module and the screan got all mistup I couldn't get my lesson back my test, I don't know what happen, it just got all scribblec all over.

3/22/93 unknown

I need lots of help will my verb



3/24/93 unknown

I was in one of my courses and I couldn't finish. I quit and tried to go back in but it wouldn't open up the course again. I had to quit and try again, because I hit a key by accident and I got a lot of unfamiliar signs or nonsence on the screen. I tried to go on but it wouldn't accept my command. I went into the personal notes and I couldn't go back to my courses so I had to quit and try again. I have waited for at least 10 minutes and nothing is happening. I wasn't receiving or sending by the modern. So I quit at 9:30 and decided to try one more time, but I failed.

3/25/93 Cheryl McIntyre

Because I had no problems.

3/25/93 Norma Amil

I was work on the Language Arts on verbs and mastered three modules and I felt so good because I know them and realize that I'm learning something it felt rewarding

3/29/93 Unknown

On the article test, I made an error. It took me to the assignment drill. It got real slow. It took me to the drill without errors.

3/29/93 Vanessa Burnett

Yes, it was very helpful to me and my work that I am doing in class.



3/31/93 Carol Bielawski

I got through my lesson without problems today. The only problem was getting the system to accept my password. I had to make 5 attempts.

4/1/93 Lillian Metzcher

I thought today I could get it, but no. Worked for hours, shut down a lot of times. Its me can get it, need to keep on trying.

4/6/93 Lillian Metzcher

Because I got some work done, I was glad. Got something done.

4/8/93 Monica Cooney

I was the captain of a starship, however, my crew did not like my opinions. I did feel that my answers were correct, or as I stated my best opinion.

4/13/93 Vanessa Burnett

I said yes but it was not enjoying, pronouns are hard to remember that they take the place of a noun. I just ddn't



4/13/93 Lillian Metzcher

Hard times. For awhile, keep at it. It worked, no stop.

4/14/93 Carol Bielawski

I enjoyed sending "p"notes and I also enjoyed being paged. I was starting into a lesson when I was paged.

4/15/93 Norma Amil

I logged on and it didn't work because it took me to the main menu would select a course and it would take me back to the main menu, it was very frustrating when you really want to work on the program.

4/18/93 Suzanne ward

Each time I work on the computer I learn something new.

4/19/93 Vanessa Burnett

It was o.k. not mush that I want to talk about



4/20/93 Cheryl Freeman For the simple fact I wasn't able to use my password. I was able to reach my teacher late that evening and discuss why I wasn't able to get any work done. Shawn LaGore 4/21/93 It's a fun way to learn. Suzanne Ward 4/23/93 The spelling lessons are really helping me a great deal. The lessons are great! 4/25/93 Norma Amil I played the games of the program and I found some of the games very educational and interesting like the restaurant game and other one's. 4/27/93 Suzanne Ward

I always look forward to the next lesson. I do not have no problem



Norma Amil 4/27/93 I was stuck on one module but I was determined to pass this module went through all the study assignments and finally mastered it. Carni Dismith 4/29/93 to John When I get in its no trouble, and I have a lot of fun in the program. Chester Burris 4/29/93 Because it very interesting. Harrise Davis 4/29/93 Because it was very easy to understand

4/29/93 Linda Fisher

The computer is a part of my family now and we are using it together. Sometimes it helps me learn a little better. Please do not take the computer until I have time to work with the telephone.



4/29/93 Lois Foster It halp me very will went I an at hom 4/29/93 Lorenzo Perkins Because I feel as though I need to understand more 4/30/93 Cheryl Freeman My keyboard gets stuck. Also the letter C doesn't show up. Yes, I will get another keyboard. Lillian Metzcher 4/30/93 Having fun on typing for awhile, went on to toher things, hae fun with that, can't remember what, but fun. 5/1/93 Michele Byrd The computer system is to slow. I'm use to working at a faster speed.



Damarisol Gray 5/5/93 Because for the first time I send my first pnote. And it was a lot of fun. I send 3 notes to people. I enjoyed. I also worked on math. Carrie A. Nesmith 5/6/93 I like working on the computer. I learn a lot. I do have trouble staying in different subjects. It is a great way to learn at home Linda Fisher 5/6/93 Have trouble put my sefl down and work on the telephome line. I will force my sefl to work on it more. I love work when I get through Lois Foster 5/6/93 The machine help me a 5/6/93 Lorenzo Perkins I need more help



5/10/93 Lillian Metzcher Couldn't get through. 5/11/93 Lillian Metzcher Had some trouble, it freexe again. Couldn't get any help, sick mad it's me. Carni Dismith 5/13/93 My computer works fine; just trying to find time for it. 5/13/93 Chester Burris It was very interest Linda Fisher 5/13/93 I in joy work on the computer went I getting start



Lois Foster 5/13/93 I learned more 5/13/93 Lorenzo Perkins Because I want to learn more. Mamie Smith 5/13/93 Because I did not have a table to work on at the time. Anita gave me a table, but it was too big to go in the space in my bedroom. 5/13/93 Mattie Blakeney Sometime I get in to a program and get stuck and I don't no how to get out. I all so in joy work on computor. 5/13/93 Cheryl Torres Because it seem to get stuck constantly makes me made. Yes after shutting it off and start again. I'll do the problems and it seems to stick and don't move. I have to shut it off to start again.



5/13/93 Damarisol Gray

Until a point when it doesn't move me to another question it gets me mad. Then it says no testing. I got to go through the whole thing again. I was taking my test. I waited for it to go to the next question and it would move for nothing. I waited and waited and still, so I hit return and it took me off my test and said I didn't mastered. The test was easy. Synonyms and anton. I was doing fine until it stays in the same place.

5/13/93 Damarisol Gray

Went threw some testes and lessons but some did get me made because the lines and then it doesn't want to change screams I have to quit all the time. Yes I was doing a game after I finish my class assignments for Thursday night and it wouldn't budge it made lines across my screean then I push "Shift-Command" but nothing, so I had to quit. I wish that would stop!

5/13/93 Lillian Metzcher

Couldn't do anything. Keeps going back to main menu.

5/13/93 Lillian Metzcher

Didn't get through. When I work on it keep going to main menu.

5/14/93 Lillian Metzcher

The typing was fun. I enjoy it. After three days I got on this month. I call Terry at work today, I guess she fix it.



5/16/93 Mattie Blakeney

I enjoy working on the computer. I begin to unstan it better.

5/22/93 Damarisol Gray

My kids were playing games they enjoyed it very much, that they were arguing who was going to play next. They loved the computer.



# ATTACHMENT 7: ELECTRONIC COMMUNICATIONS



#### Drexel + → CDSI Notes Note #4 (Exponents)

Successful communication is very important to this project. 2/17/93 12:18 pm terry / phiadmin

To Instructors: In the GED Math Curriculum, exponents are covered under Basic Number Ideas. To write a number in exponential form it is explained to the student to use the CONTROL+ command. The Mac standard keyboard has no control key, and even if it did it wouldn't work anyway. The Mac equivalent for control+ is COMMAND-U. To write the number 59 you would first type the 5, then press command-u, and then type the 9. Thank you, Terry Martell



Date: 2/3/93 Time: 3:10 p.m.  Type: O General O System © Courseware  Comment:	Name: Donna  To: O Learner O Teacher O Support O CYBIS  From: O Learner • Teacher O Support O CYBIS
What do we do when we do not think a lesson is working rig what it's supposed to.	ht? I don't think the "Strange Verb" lesson in Language Arts is doing
Date: 2/4/93 Time: 5:03 p.m. Type: O General O System © Courseware Comment:	Name: Miriam Hecksel  To: O Learner O Teacher O Support O CYBIS  From: O Learner O Teacher Support O CYBIS
Hello, How are you? Chris discovered that the lesson =philus that new students were on yesterday yet their records did not simply shutting off their computers (or modems) while in the from there. Chris has modified the code to account for "unus the property sign off. If this record-collecting property sign off.	use was not trapping allof the usage information. He knew for example, show up in =philuse. We are speculating that some of the students are actual courseware instead of backing out to the menu and signing ut sual" log-offs. You might want to instruct the instrucors to teach the problem continues, Chris will have to find another solution. BTW, do you And, it would be fun to know which centers correspond to which groups
7.05	Name: Terry
Date: 2/4/93 Time: 7:05 p.m. Type: O General O System O Courseware Comment:	To: O Learner O Teacher Support O CYBIS  From: O Learner O Teacher Support O CYBIS
Hi Benji, I know you're away, but I have just spend some ting she really enjoyed it. This is going to be fun. Hope the confipeople to present at our conference. Got to go.	me monitoring the term-talking with one of my students. It was fun and ference was good and you had fun and learned a lot and you found 10
Date: 2/5/93 Time: 8:21 p.m.  Type: O General O System © Courseware  Comment:	Name: Donna To: O Learner O Teacher Support O CYBIS From: O Learner O Teacher Support O CYBIS
Don what the back is an ANS key on the Apple? I was doi	ing okay 'til it asked for that! Also, do you know anyone else using the es with that. Thanks again for making the trip to Kensington.

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Type: O General O System © Courseware  Comment:	From: O Le	amer O Teache amer <b>©</b> Teache	я O Support	O CYBIS
Ben, the "Strange Verbs" lesson is under language lessons issue when you have to choose 3 of the verbs from a group 5 tries to pass what a blow to my ego! We are devoting excited. I'm developing some directions for them. Wish to	of five, but it just we next Monday to cor	ould not accept sommunications intro	me of the eright for the learners	answers. It took me
0.44.00				
Date: 2/11/93  Time: 5:47 p.m.  Type: O General O System Courseware  Comment:  Terry,	Name: Mcint To: O Lea From: D Lea	yrec imer O Teachei imer O Teachei	Support Support	O CYBIS O CYBIS
I want to move on but I don't know how, cheryl m				
Date: 2/17/93 Time: 9:26 p.m.	Name: Torres	<u></u>		
Type: O General O System O Courseware Comment:	To: O Lea From: © Lea	mer O Teacher mer O Teacher	Support O Support	O CYBIS O CYBIS
Hello Terry, Todays date 2-17-93. It is about 9:45 p.m. I was doing algebra did the first test great, but the second to computer screen said there is a problem this is what it said, the following to your clm instructor if you could try to answ Sincerely Cheryl Torres.	execution error ha	was going to give s occurred in lesson	me the assignmen Obac 101 unit s	ent but the tart, please report
Date: 2/17/93 Time: 1:45 p.m.	Name: Mcinty	тес		
Type: O General O System Courseware	To: O Lear	ner O Teacher ner O Teacher	O Support O Support	<ul><li>♠ CYBIS</li><li>♠ CYBIS</li></ul>
notes from lesson: plmrx curriculum = Obslang module p, course 1, is not verified for assignments.				



Date: 2/17/93 Time: 1:43 p.m. Name: Icintyrec Type: O General O System O Courseware To: O Learner O Teacher O Support @ CYBIS From: Deamer O Teacher O Support O CYBIS Comment: ----notes from lesson: plmrx curriculum = Obslang module p, course 1, is not verified for assignments Date: 2/17/93 Time: 1:14 p.m. Name: Mcintyrec Type: O General O System O Courseware To: O Learner O Teacher O Support © CYBIS From: O Leamer O Teacher O Support O CYBIS Comment: ----notes from lesson: plmrx curriculum = Obslang moduie p, course 1, is not verified for assignments. Name: Mcintyrec Date: 2/17/93 Time: 1:13 p.m. To: O Learner O Teacher O Support O CYBIS Type: O General O System © Courseware From: Deamer O Teacher O Support O CYBIS Comment: ----notes from lesson: plmrx curriculum = Obslang module p, course 1, is not verified for assignments. Date: 2/17/93 Name: Mcintyrec Time: 1:12 p.m. Type: O General O System O Courseware To: O Learner O Teacher O Support © CYBIS From: O Learner O Teacher O Support O CYBIS Comment: .....notes from lesson: plmrouter curriculum = Obslang



module p, course 1, is not verified for testing.

Date: 2/18/93 Time: 4:24 p.m.  Type: O General O System © Courseware  Comment:	To: O Learner O Teacher Support O CYBIS  From: O Learner O Teacher Support O CYBIS
	to Bob Hubel. I will send you a status report as to when this will be fixed, it sounds like line hits (communications problem). I would have Ben call y input.
Date: 2/23/93 Time: 10:31 Type: O General O System © Courseware Comment:	Name: Donna To: O Learner O Teacher O Support O CYBIS From: O Learner O Teacher O Support O CYBIS
	sage to report: In 2zsmtest, the earned score is greater than the possible report these to. So you are stuck with it, and I will keep trying to get to the
Date: 2/23/93 Time: 8:03 p.m. Type: O General O System © Courseware Comment:notes from lesson: execerr *** Execution error in lesson 'Obac101' In unit ieu line 10 regular (pre-arrow) Last Command was calc Bad index: horizontal segment out of range. Value was -1. (octal: 077777777777777776) Join sequence - start 0	Name: Pedro To: O Learner O Teacher O Support O CYBIS From: O Learner Teacher O Support O CYBIS
Date: 2/24/93 Time: 8:02 Type: O General O System © Courseware Comment:notes from lesson: pimrouter curriculum = Obslang module p, course 1, is not venfied for testing.	Name: Oooneym To: O Learner O Teacher O Support © CYBIS From: © Learner O Teacher O Support O CYBIS

Date: 2/25/93 Time: 9:18 p.m. Type: O General O System © Courseware Comment:notes from lesson: execerr *** Execution error in lesson 'obac101'*** Last Command was calc Bad index: horizontal segment out of range. Join sequence - start 0 I'm unable to continue my lesson. I need help	Name: Tumercj To: O Learner O Teacher O Support O CYBIS From: Learner O Teacher O Support O CYBIS
Date: 2/25/93  Time: 9:29 p.m.  Type: O General O System © Courseware  Comment: notes from lesson: plmrouter curriculum = 0bslang module p, course 1, is not verified for testing	Name: Donna To: O Learner O Teacher O Support O CYBIS From: O Learner Teacher O Support O CYBIS
Date: 2/25/93 Time: 9:14 p.m. Type: O General O System © Courseware Comment:notes from lesson: execerr *** Execution error in lesson 'Obac101' *** In unit ieu line 10 regular (pre-arrow) Last Command was calc Bad index: horizontal segment out of range. Value was -1. (octal: 077777777777777776) Join sequence - start 0 I can't find the ctrl key	Name: Turnerc To: O Learner O Teacher O Support O CYBIS From: Learner O Teacher O Support O CYBIS
	Name: Donna To: O Learner O Teacher O Support O CYBIS From: O Learner O Teacher O Support O CYBIS lessons. When you try to take the test, it says "curriculum=0bslang. ent ready to move on but we're stuck. Can I come to Arizona, too?

Name: Donna To: O Learner O Teacher Support O CYBIS From: O Learner Teacher O Support O CYBIS	; ;
essons. When you try to take the test, it says "curriulum=obslang, int ready to move on but we're stuck.	
Name: Donna To: O Learner O Teacher O Support O CYBIS From: O Learner Teacher O Support O CYBIS	
Name: Mcsorleyj To: O Learner O Teacher O Support © CYBIS From: O Learner O Teacher O Support O CYBIS a slow and also trouble getting to next section after verbs in gramm	S
Name: Oconeym  To: O Learner O Teacher O Support © CYBIS  From: © Learner O Teacher O Support O CYBIS	 6
	Name: Donna To: O Learner O Teacher O Support O CYBIS  Name: Mcsorleyj To: O Learner O Teacher O Support O CYBIS  From: O Learner O Teacher O Support O CYBIS  ra slow and also trouble getting to next section after verbs in gramm  Name: Occupy To: O Learner O Teacher O Support O CYBIS  Name: Occupy To: O Learner O Teacher O Support O CYBIS  Name: Occupy To: O Learner O Teacher O Support O CYBIS  Name: Occupy To: O Learner O Teacher O Support O CYBIS

Date: 3/4/93 Time: 4:33 p.m.  Type: O General O System © Courseware  Comment:	Name: Mosorleyj  To: O Learner O Teacher O Support O CYBIS  From: © Learner O Teacher O Support O CYBIS	
blank - when you give up and hit next, it takes you out of test drill before tying test again, took drill, then took mastery test A	est, 1st test fine but second test either question or fourth question stay and says you did not master it - this happened twice, then made us to AGAIN, and same thing happened on fourth question of second test!!! dn't master previous one!!!! This is mosorleyj of group phi00003. B	ake a
Date: 3/10/93 Time: 5:21 p.m. Type: O General O System © Courseware Comment:	Name: Donna To: OLearner O Teacher Support O CYBIS From: OLearner Teacher O Support O CYBIS	
get to module x and it does the same thing: You are working	ruage (grammar) again. After being forced by module v to take the lag along, taking the test, when suddenly nothing appears in the boxes, press NEXT, it tells you that you didn't pass and you'll have to do the hink they've done something wrong.	but
Date: 3/10/93 Time: 5:21 p.m. Type: O General O System © Courseware Comment:	Name: Donna To: O Learner O Teacher Support O CYBIS From: O Learner Teacher O Support O CYBIS	
And furthermore I have just been working in group phi0000 to take the lab, I get to module x and it does the same thing: the boxes, but the system tells you to press NEXT to continu	Of on the basic language (grammar) again. After being forced by mocking along, taking the test, when suddenly nothing appeare. When you press NEXT, it tells you that you didn't pass and you'le situations that upset the learners because they think they've done	ars in
Date: 3/16/93 Time: 6:06 p.m. Type: O General O System © Courseware Comment:	Name: Holderp  To: O Learner O Teacher O Support © CYBIS  From: © Learner O Teacher O Support O CYBIS	



Date: 3/25/93  Time: 2:02 p.m.  Type: O General O System Courseware  Comment:  notes from lesson: plmrouter  curriculum = 2 gedmath unit: modlist  Cannot get past module c. Have mastered all tests. Terry will	Name: Mcintyrec To: O Learner O Teacher O Support © CYBIS From: Learner O Teacher O Support O CYBIS
Date: 3/31/93 Time: 9:59 p.m.  Type: O General O System © Courseware  Comment:	Name: Fieldsc To: O Learner O Teacher O Support O CYBIS From: Learner O Teacher O Support O CYBIS
module. I had a ball this afternoon. We should do it again re-	the basic module1. It was pretty fun, so each night I'll practice another al soon. Well I gotta go Justin is getting very cranky. Write back real t I'm sure we'll keep in touch with one another. See ya in class
Date: 4/9/93 Time: 7:18 p.m. Type: O General O System © Courseware Comment:  Mcsorley/phi00003/cdc 0-3 has a question	Name: Mcsorleyj To: O Learner O Teacher O Support O CYBIS From: O Learner O Teacher O Support O CYBIS
Mesorleyj from phi00003 - the key after "a" and before "e" is t	not working - what can we do?
Date: 4/19/93 Time: 7:30 p.m. Type: O General O System © Courseware Comment: notes from lesson: plmtest curriculum - obslang module - Olang25, iu -, question -	Name: Donna  To: Learner O Teacher O Support O CYBIS  From: O Learner Teacher O Support O CYBIS
Just demonstrating COMMENT for learners	

Date: Type: Comm		Time: O System	6:55 p.m. Courseware	Name: To: From:	O Learner	O Teacher O Teacher	Support Support	O CYBIS
me. The all to the all tried to grayd we exempt	t me tell you the here is a hotel rairport. Ben wa anted to let you to fix hers and a	ight down the sti s definitely a bea know that anoth amiln's problem.	our pnote about hotel interect from us on Chestnuter source of info.  The student had the lesson I exempted them from the B. The arrow was socrew anything up, but the	n sending nseveral m	ner back to the nodules hoping to module I	dea what one it the menu proble g that would fir B even though	is, I also don't m tonight. I di x it. I don't kno it said she had	dn't want to wait so ow if it did. Also, mastered it so I
Date: Type: Comn		Time:  O System	8:52 a.m. Courseware	To:	Miriam He O Leamer O Leamer	O Teacher	<ul><li>Support</li><li>Support</li></ul>	O CYBIS O CYBIS
Terry, Manag *elaine	below is Elaine ement Strategy keller /coserv	VMS) to delete /cdc 4/28/93 2:3 d. "mod. le mast	f why your student got ' the requirement to take for p.m. ery ksson." The module module reinforcement	a reinford e works as	s designed. A	. What is your fter you "maste	wish? ar" it (by answe	ring enough
Also, v	we are looking the Chris Hopkins	into the problem is looking at his	s with Language Arts. I menu to determine wh	We have i y learners	identified the pare getting "s	problem but I a tuck" in a loop	am not sure how o. I will keep y	w long it will take to ou posted. M.
Common Micsor all, but herbs/	nent: leyj - a long tin t a drill - I am l predicates, etc.	O System one ago I left a no laving tremendo so I am going b	7:40 p.m. Courseware  te saving that the tutoricus trouble with verbs an ack to grammar section !!!! Jack McSorley	To: From: al for the id it is me	Learner very first grar ssing me up ir	O Teacher nmar item - wh later courses	because it all le	O CYBIS  S NOT a tutorial at ads back to
Type Com		O System	8:30 p.m.  © Courseware	To:	Legares O Learner	O Teacher O Teacher	O Support O Support	○ CYBIS     ○ CYBIS
The co	omputer will no	ot let me finish t	he module test on Unus	ual Plural	s.			

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•		plmretum curric		To: From:: c = ;	● Learner	O Teacher O Teacher		
_	Date: 5/14/93 Type: O General Comment:	O System 🎱		From:	O Learner O Learner	O Teacher O Teacher	Support	O CYBIS
			vailable for phi00001 thusing the system-just					
1	first used the system?	erpret the Days, H Average # of Ses	Hours and Sessions data isions/User since the fir Please call me at 516-22	st use of t	he system? If	these are corre		
	Date: 5/19/93 Type: O General Comment: lesson: inb13c10 unit Computer always slow	O System   t: notebook site:	network 0-1	To:		O Teacher O Teacher		
	Date: 5/24/93 Type: O General Comment:				O Learner	O Teacher Teacher		
1	Ben - Us again. When	e the heck is the A	ARROW keys on the Ap	ple keyb	oard? Sorry.	Donnaxxxxxx	XXXX	

Date: 6/2/93 Type: O General Comment:	Time: O System	7:16 p.m.	To:			O Support O Support	
question and took us of time it comes up blank	ut and acted like and freezes!!!	00 Jack got through tuto te we didn't pass test so o So he can't do drill and e of person who left us n	only think. I it won't le	Jack can do is t him take and	s drill but he tr other test until 1	ied 4 times to d he does drill, so	do drill and each
Date: 6/2/93 Type: O General Comment: Well, I understand this The "Is the Word In To Without a question, th	O System  now. his Sentence a	VERB?" is the title of th	To: From:		O Teacher	O Support O Support	
"Is the Word in This S Hell, there's no sentend Something is wrong h	O System  it: loop site: (a) and this is entence a VER ce! (And this is ere s "Wor\$.) This,	network 0-7 the first question in the	From: test. this - with	O Learner  • Learner  the same resu	O Teacher	O Support O Support	
Date: 6/3/93 Type: O General Comment: mcsorleyj again 6/3 -	O System	8:06 p.m. © Courseware s even in math - took us	To: From:	<ul><li>Learner</li></ul>	O Teacher	O Support O Support : - this is too cr	O CYBIS



Date: 6/3/93 Type: O General Comment:	Time: 7:38 p.m. System © Course	ware To:	Mcsorleyj O Learner Learner	O Teacher O Teacher	O Support O Support	<ul><li>● CYBIS</li><li>○ CYBIS</li></ul>
mesorleyj 6/3 is made ja nights in a row this happ to another module modu	ened - ykoest yhet yet	jack				ezes up! Two
to alouer mouse most			•			
Date: 6/3/93 Type: O General ( Comment:	Time: 8:07  System © Course	ware To:	Mcsorleyj O Leamer • Leamer	O Teacher O Teacher	O Support O Support	OCYBIS OCYBIS
Mcsorleyj /phi00003/cdc Part 2 of mcsorley - hard on working like this. T	d to leave note since keep	os crashing - can somec	one let us knov	v when system	is okay again,	because we can't go
Date: 6/4/93 Type: O General (	Time: 7:19 p.n O System © Course	ware To:	McSorleyj O Learner  © Learner	O Teacher	O Support O Support	© CYBIS O CYBIS
6/4/ Mesorleyj to Elaine progress to next module	or Dorothy - thanks for a until drill done, so we're	notes still can't do drill going back to math.	for envelopes Thanks.	(return address	ses) and won't l	et us do test or
Date: 6/6/93 Type: OGeneral ( Comment:		ware To: From:	<ul><li>Learner</li></ul>	O Teacher	O Support O Support	O CYBIS
Mosorleyj 6/6 nte 2 - we wrong even though we a can't get past this modul there !!! We will gobac appl.??? Thanks.	are sure it is correct, espe- le in order to do rest (and	cially the obvious ones I we've been mainly try	! This module ring to get to ()	: was program: 3) filling out ap	ned poorly and oplications and	we just can't get



Date: 6/6/93 Type: O General C Comment:	) System		To: From:	Learner	O Teacher O Teacher	O Support O Support	O CYBIS
Ann - every answer com	es up WROI	for envelopes - we finally	itively SU	IRE of answer	having major - if one of you	problem with to u do tesvrou wil	est for d. Letter of I see what we
mean. It is impossible to	n6/6/93get :	any right!!! so we may b	e stuck a	gain.			
Date: 6/6/93 Type: O General ( Comment:	Time: System	8:18 a.m. © Courseware	To:	Bielawskic O Leamer  • Leamer	O Teacher	O Support O Support	⊙ CYBIS ○ CYBIS
Notes from lesson: plmr Curriculum -0bslang mo I get to one of the last q brings up the mastery so	dule -=5	there is no question just batters that I have not passe	ooxes for d. Althou	your choice.	When I push notes are question	ext because it i	s not moving on, it
Date: 6/7/93 Type: O General Comment:	O System		To: From:	O Learner	Teacher	Support Support	O CYBIS
Ben, the arrow keys we alternate. Thanks.xxxx	re for a Cybi xxxxxx	is lesson, but our TERM (	COMMEN	T finally got	some results (	after 2 tries) and	they put in an
s.						<u>,, , , , , , , , , , , , , , , , , , ,</u>	
Date: 6/7/93 Type: O General Comment:	Time O System	: 6:05 p.m. <b>⑥</b> Courseware	το.	Words O Learner O Learner	O Teacher O Teacher	O Support	© CYBIS O CYBIS
Notes from lesson: plm Curriculum =0bslang	router unit modlist	·					
This module (j) is not r	ecording the	test completion. Please h	nelp. Tha	nks.			
1							



Date: 6/8/93  Time: 11:42  Type: O General O System © Courseware  Comment:  Notes from lesson: plmrouter curriculum = Obslang unit = modlist  After failing two questions in a row in Module B, the variable this if anyone's interested.  Dave Runte	Name: Dave To: O Learner O Teacher O Support O CYBIS From: Learner O Teacher O Support O CYBIS  s were shown at the top of the screen. I was able to get a hard copy of
Date: 6/9/93 Time: 1:43 p.m. Type: O General O System © Courseware Comment:  Notes fromlesson: plmrx unit=oncassin, curric=0bslang, module=0lang2, camein-0 lr#2	Name: Dave  To: O Learner O Teacher O Support © CYBIS  From: © Learner O Teacher O Support O CYBIS
Hmmm I flunked the test but I've got a checkmark for comp doesn't seem right.	pleting my study assignment (which was a Cybis lesson). Somehow, that
Date: 6/9/93 Time: 11:40 Type: O General O System © Courseware Comment:  Notes from lesson: plmrouter curriculum -Obslang unit=module I've reported this problem a long time ago (see notesfiles =d. There is overwriting on this screen.	
I think it won't let me test again so I decided to look at Modul	A and passed it. 2.) I took the test for Module B and failed it twice, le C. As I've reported this overwriting before, I highly doubt that this is appened. (At the question, "What do you want to do now?" option 1.) the of the "box" on this screen.)
Date: 6/10/93 Time: 8:45 p.m. Type: O General O System © Courseware Comment:  Notes from lesson: execerr ***Execution error in lesson 'clmjump' *** In unit returnline 2 regular (pre-arrow) Last Command was calc Bad index: horizontal segment out of range. Value was 0. (octal: 000000000000000000000000000000000000	Name: words00008  To: O Learner O Teacher O Support O CYBIS  From: O Learner O Teacher O Support O CYBIS

Date: 6/10/93 Time: 7:15 p.m. Type: O General O System © Courseware Comment:	To:	Mosorleyj O Learner  • Learner	O Teacher O Teacher	O Support O Support	© CYBIS O CYBIS
MCsorleyj note 2 6/10-MAJOR problem in math-division a. te sign!!!! If this is like that all the way through division course,	st - each it will be	optionthat sho impossible to	uld have a div pick correct a	rision sign inste unswers!!!	ead has a PLUS
Date: 6/11/93 Time: 10:35 Type: O General O System © Courseware	To:	Dave Runte O Learner	O Teacher	O Support	<b>⊙</b> CYBIS
Comment:  I checked the CLM questions and they do have division signs.				O Support problem that sur	
and their handling of fonts and charsets.  So the courseware is working correctly.					
	<del></del>	Т			
Date: Type: © General O System O Courseware Comment:	To:	Terry O Learner O Learner	Teacher Teacher	O Support Support	O CYBIS O CYBIS
Scot and John, Just talked to Donna, she is aware of problem and she and Ber also only limited to a 2 week usage, even for administrators ar	n are work nd it isn't	king on it. Al	so, just found of hen that 2 wee	out that the con ks began. So i	npuserve number is f you have trouble
logging on with the number you know why. Please be patient, I'll let you know what's happening ASAP.	Thanks, 1	Terry.			
Date: 1/7/93  Time: 2:47 p.m.  Type: © General O System O Courseware  Comment:	To:	Ludo O Leamer O Leamer	O Teacher Teacher	<ul><li>Support</li><li>Support</li></ul>	O CYBIS O CYBIS
Hi Ben, I read your note, which tells you that I was able to ge					



Date: 1/11/93  Time: 2:00 p.m.  Ty e: General O System O Courseware  Comment:  Thank you for your assistance. I've chosen another password.  visit. Take care.	To: O Learner O Teacher Support O CYBIS  From: O Learner Teacher O Support O CYBIS  Welcome back to the states, ole mate. We are looking forward to your
Date: 1/26/93 Time: 9:57 p.m.  Type: © General O System O Courseware  Comment:	Name: Terry To: O Learner O Teacher Support O CYBIS From: O Learner O Teacher Support O CYBIS
it still takes forever to get in, but it works and I want to give y	on the CYBIS trying to figure out how to fix the log on file. I fixed it, you a copy of it.  O number because it is faster. I don't think CDC will care much, but I'll
	one here to look at the file and get it to work faster. The problem isn't takes about 10 seconds for the system to recognize a keyboard nt's will get frustrated!! and won't use it!!!
Date: 2/15/93 Time: 9:10 a.m. Type: © General O System O Courseware Comment:	Name: Miriam Hecksel  To: O Learner O Teacher Support O CYBIS  From: O Learner O Teacher Support O CYBIS
alor time in the courses; very exciting. I was curious as to whi	ty in groups phi0002 and phi0006. Some students have been spending ich center was matched up with which group. I am speculating that eLutheran Settlement House. It would be nice to know who is who.
Date: 2/15/93 Time: 6:53 p.m.  Type: © General O System O Courseware  Comment:	Name: Fred  To: O Learner O Teacher Support O CYBIS  From: O Learner Teacher O Support O CYBIS
This Thursday is the third Thursday in February. Will there be	a meeting as announced at the last one we had at Drexel?



Date: 2/16/93  Time: 8:15 a.m.  Type: General O System O Courseware  Comment:  Able to connect from CFL Headquarters using the new start-up John.  P.S. Really hope to the learners up and running by the eend of the start-up and running by the eend	From: p disk by	O Learner O Teacher O Support O CYBIS O Learner Teacher O Support O CYBIS erasing the *7.0 prefix. All is well, or so it seems, in Gotham.
see the Mayor's Commission being the primary audience and I	To: From: Evaluation e of an evan of this p Drexel, the	aluation of this project? roject? Who are the secondary audiences for the evaluation? I e instructors, IMSATT, and Control Data as being secondary far as an evaluation is concerned? (i.e., Mayor's Commission -
Date: 2/23/93 Time: 11:04 Type: © General O System O Courseware Comment: Thanks Ben Your information is VERY helpful! You are a sweetie. Was got an A on my first paper, thanks to all of the great info you	To: From: Bob Hube	Miriam Hecksel  O Learner O Teacher Support O CYBIS  O Learner O Teacher Support O CYBIS  el able to help you today? I hope so. Take care of yourself. I eack in October. I will send you a final copy. See ya!
Date: 2/24/93 Time: 9:11 a.m.  Type: General O System O Courseware  Comment:  Ben, One more question for you regarding this Literacy Project. In would be possible constraints? For example, are there certain effective evaluation? Looking forward t ohearing from you.  Thanks a million!	To: From: your opin political s	situations, adversarial relationships, etc., that could hindrance an



	Name: Miriam Hecksel  To: O Learner O Teacher Support O CYBIS  From: O Learner O Teacher Support O CYBIS  ject. In your opinion, if you were doing an evaluation of this project, what n political situations, adversarial relationships, etc., that could hindrance an (My paper is due tonight - GRIN.) Thanks a million!
Date: 2/26/93  Time: 2:22 p.m.  Type: General O System O Courseware  Comment:  Ben, my student "legares" is having no luck with her passwo my manual, but I have "inspect only" rights to her file. As a	Name: Donna To: O Learner O Teacher Support O CYBIS From: O Learner Teacher O Support O CYBIS ord (31 attempts). It is luvme according to her. I tried to change it using usual, HELP, HELP. Do you get tired of hearing from me?
	Name: John To: O Learner O Teacher Support O CYBIS From: O Learner Teacher O Support O CYBIS  fCOL meeting off Rose, and there is some concern shared by both of us, is, they may end up feeling that they are at fault somehow for not making a the learners.
Date: 3/24/93 Time: 3:39 p.m. Type: © General O System O Courseware Comment: Narcy, I put in my two hours today and decided to drop you a line or registration this Saturday. Give me a call whenyou get this	Name: Fieldsc To: O Learner O Teacher O Support © CYBIS From: © Learner O Teacher O Support O CYBIS  r two. I also wanted to remind you to prepare yourself for GED test message. See ya. Coulete



Date: 3/31/93 Type: General O System O Courseware Comment: Notes from lesson Onbr1231 This student needs help using the	Name: Johnsonm To: O Learner O Teacher O Support © CYBIS From: © Learner O Teacher O Support O CYBIS e key.	
Date: 3/31/93 Time: 10:43 Type: © General O System O Courseware Comment: Ben, Hi my name is Vickie Moody, I have been enjoying the progr Vickie	Name: Ludo To: O Learner O Teacher Support O CYBIS From: O Learner Teacher O Support O CYBIS rams being sent through the computer. We are at Perkins Morris Shelter	•
Date: 4/3/93 Time: 7:08 p.m. Type: © General O System O Courseware Comment: Is Cybis going to be unavailable tonight or tomorrow? Does going down if it is?	Name: McSorleyj To: O Learner O Teacher O Support © CYBIS From: © Learner O Teacher O Support O CYBIS a notice stating such still come up? Can you note what time it will be	
Date: 4/6/93  Time: 11:05  Type: © General O System O Courseware  Comment:  Hi Ben,  I am Diane. I am at red shelld working with Ludo. This com	Name: Ludo To: O Learner O Teacher O Support O CYBIS From: O Learner Teacher O Support O CYBIS  nputer stuff is very interesting. Diane	

ERIC Full Text Provided by ERIC

Date: 4/6/93 Time: 7:51 Type: © General O System O Courseware Comment:	Name: Nat Kannan To: OLearner O Teacher Support O CYBIS From: OLearner O Teacher Support O CYBIS
your instructors are using it extensively. I understand the frus Please complain to Bob Huntsberger or Ann Greer to increase Beli Intelligate that has problems. You can of course use the this. If I had the money I would gladly subsidize a cause such available in Philadelphia. I will give you a test account. It is lot faster and easier to access. I am working on a way for you	use of the 800 number for CYBIS. It costs \$12 per hour and some of tration with Bell Atlantic lines but we can't afford to pay \$12 a hour, the speed of the bandwidth. The internet works fine and I think it is the 800 number on occasions to test for a few minutes. I am sorry about as ours. We will soon be on a nationwide network which will also more expensive than Bell (about the same as Am Inline or Genie) but a r students to go directly to Interne from your local Freenet. You might DC system with out any connect time costs. I hope things are
Date: 4/6/93 Time: 7:07 Type: © General O System O Courseware Comment:	Name: Terry To: OLearner O Teacher Support O CYBIS From: OLearner O Teacher Support O CYBIS
reversed side he took it down thinking someone left it for you. which is where Chad put it, but I didn't think the one I saw wa on the backwhich is where her name was. Anyway she was g	for LeQuyen today. Here, Chad sawit and when he saw your name on the When LeQuyen came, Chad wasn't around. We did lookin your office, is it because it had a label on it with your name and address. I didn't look gone when Chad came back. I called her and left here a message, but she everal people remembered seeing it yesterday at 5:30-6:00 but not at all
PS: I met with 6 drexel students today about the IMSATT promay get lucky and get these students motivated. The AM grown	ogram. 3 of the PM group were very excited when they left today so we up is a pain in the ass.
Date: 4/9/93 Time: 10:01 Type: © General O System O Courseware Comment:	Name: Ludo To: OLearner O Teacher Support O CYBIS From: OLearner Teacher O Support O CYBIS
Hi Ben, We are here at Eliza Shirley. We are Barbara, Helen, computer. What about them Phillies? This is a lot of fun. Lu is right about that Ludo is an excellent teacher we are having f This is Locauntis I don't feel very well, but I am here. I am B	Mary, Cynthia, Locauntis, Ted and Ludo. This is our first time on the do is an excellent teacher. If he can teach us he can teach anybody! Ted in learning about computers. Hi Ben, arbara I am fine too. This class is ok and I am enjoying it. May name. Ben have a good day and if you get this message before 12:00, give us
Date: 4/14/93 Time: 5:44 p.m. Type: © General O System O Courseware Comment: Hey Burenstein, It's alive, the monster is alive. This message comes to you via	Name: Pedro To: O Learner O Teacher O Support O CYBIS From: O Learner O Teacher O Support O CYBIS the intelligage (aka snailagate) screen.
,	

Date: 4/15/93 Type: © General Comment:		9:18 a.m. O Courseware	To:	Miriam He O Learner O Learner	O Teacher	<ul><li>Support</li><li>Support</li></ul>	O CYBIS O CYBIS
communicated that to	Nat which is the F***** snowing	d that is good? But I can he best thing to do. ing here today. I can't b		at Intelligate.	Yes, it is slo	w. And I kno	w you have
Date: 4/19/93 Type: © General Comment:		9:29 p.m. O Courseware	To:	Fieldsc  Learner  Learner	O Teacher O Teacher	O Support O Support	O CYBIS O CYBIS
Miller, N. I'm just finishing my lime to pick up the phid better go now. I'll P.S. Remember the V. Co-Co Peace!	one so I thoug see you soon h	ded to write. How are y ht I'd drop you a line or copefully.	vou? I got y two. I mis	our message o	n my answerir ss but such is l	ng machine. I' life. We must	ve hardly had the go on right. Well
Date: 4/21/93 Type: © General Comment: To my instructor, ya yo termine el prime	O System	1:12 p.m. O Courseware es, me puede decir que y	To: From:	Lebrong O Learner © Learner ahora.			
						·	
Date: 4/27/93 Type: © General Comment:		1:40 p.m. O Courseware		Donna O Learner O Learner			
lelf-Sufficiency progrupprised - I thought you daily life - she got a bank or the standard of	am and was live ou had to go to unk account and comoted and lead. She said she	in Goode award is Cheryling at a shelter for home college or be a doctor of used her MAC card, and right to use the compute used to think she would ming course she has gain	eless women or lawyer to d she got a j or for data en l never be ar	i. She wok an run a computer ob as a reception try. Now she haything, and no	introductory c r." Then, she lead used that he own ho ow she has the	omputer class learned to use a computerize me and was so confidence to	and was "So computers in her ad phone system. excited to have her try many new

Date: 5/6/93 Time: 1:55 p.m. Type: © General O System O Courseware Comment: Hi Phuoc, How are you doing? Are you working hard with the computage Ping	From: Learner	O Teacher O Support O Teacher O Support vorking hard. See you soon.	CYBIS
Date: 5/7/93 Time: 9:14 p.m.  Type: General O System O Courseware  Comment:  An enemy I had, whose face I stoutly, even resolutely, strove steps unseen, wherever I did go. My plans he balked, my air	From: O Learner to know. I saw his shadons he foiled, he blocked m	ly onward way. Nay he woo	O CYBIS nard he dogged my uld say, when for
some lofty goal I toiled away. One night I seized and held he I looked upon his face at last, and lo MYSELF I saw. Yes I'll make the 3.5 copy. I can drop it off Monday evening			s i vore nis veii awaj
Date: 5/18/93 Time: Type: General O System O Courseware Comment:	Name: Terry To: O Learner From: O Learner	O Teacher Support O Teacher Support	O CYBIS O CYBIS
Hello Miriam: When Jan found out that with your help we were able to pull grateful. Thank you very, very much for your generous help and know Your friend, Terry	_	•	and enternally
Date: 5/20/93 Time: 10:19 Type: © General O System O Courseware Comment: lesson: 2zgedm2f unit probs2 site: netowrk 0 - 6		O Teacher O Support O Teacher O Support	
I'm having trouble answering a math problem from module 3	, please help me.		

Dete: 5/24/93  Time: 6:25 p.m.  Type: © General O System O Courseware  Comment:	To: From:	O Learner	Teacher	<ul><li>Support</li><li>Support</li></ul>	O CYBIS
Hi Ben. We are going to continue at CWEP until Aug. 15. Sorry about the misspelled words. My brain was left at the a anything other than change her name? Should I have checked	irport. I ch	nanged a studer	nt from Torres	t to Chybinskij	e end of June. Do I need to do
Date: 5/24/93 Time: 6:46 p.m. Type: © General O System O Courseware Comment: lesson: inbl4b5 unit 5b site network 0 - 4	To:	Bielawskic O Learner O Learner	O Teacher	O Support O Support	© CYBIS O CYBIS
Where is the arrow key on the Apple for this zapper?					
Date: 5/27/93 Time: 10:45 Type: © General O System O Courseware  Comment:  lesson: inbl4b5 unit: data site: network 0-3	To:	Bielawskie O Learner Learner	O Teacher	O Support	© CYBIS O CYBIS
There is a problem with the zapstick it won't move. Do not	have extend	ded keyboard.			
Date: 5/27/93 Time: 6:34 p.m. Type: © General O System O Courseware Comment:	To From	: C Learner	O Teacher O Teacher	O Support	CYBIS
In tutorial "commas" keeps suddenly takingus out to DATA	TOO CON	TINUE WOR	KING and out	or tutomai!!!	мсѕогеуј

	Date: 6/3/93 Type: © General Comment:	O System O	3:06 p.m. Courseware	To:	Mcsorleyj O Learner  Learner	O Teacher O Teacher	O Support O Support	O CYBIS
	Mcsorleyj /phi00003/ Mcsorleyj again 6/3 -	cdc 0-2 has a ques major problems e	stion ven in math - took us	out of tuto	rialand said da	nta to continue	- this is too cra	azy, we are getting
								,
						<del></del>		
	Date: 6/3/93 Type: @ General Comment:	Time: O O System O	7:38 p.m. Courseware	To:	Mcsorleyj O Learner  • Learner	O Teacher O Teacher	O Support O Support	<ul><li>● CYBIS</li><li>○ CYBIS</li></ul>
	Mosorlevi /ohi00003	ack do drill - but d	stion irill keeps coming up	with boxes	for yes or no	but blank ques	stion and freeze	es up! Two nights in
	Help! Help! Help! Pk	ease						
	Date: 6/6/93 Type: © General Comment:	Time:	8:26 p.m. Courseware	To:	Pedro O Learner O Learner	O Teacher  Teacher	<ul><li>Support</li><li>Support</li></ul>	O CYBIS O CYBIS
	Harr Duranetain The	the Phiadmin and	m UPENN working w 1 00009 groups. If it ca XXXXXXXXXXXXXXXX	vith me and a~be done	I the imsatt. S I'll be very ap	ince Jennifer i preciative. He	s not using her r name is Agne	signon, can the s Malaret (agnesm)
	Date: 6/11/93 Type: © Genera	Time:	8:24 p.m. Courseware	To:	Gonzalezn O Learner O Learner	O Teacher	O Support	<ul><li>● CYBIS</li><li>● CYBIS</li></ul>
_		empezar de nuevo	; ya que es muy intere	s ante el p	rograma por e	l cual me gusta	aria seguir estu	diar (
•	•							

Comment:	Time: 6:58 p.m.  System O Courseware	To:			O Support O Support	
	a/ coc 0-3 has a question  e thing as tast night: in middle of gain. Does anyone really read the					
Comment	Time: 6:27 p.m. System O Courseware same problems again that someon	To: From:	<ul><li>Learner</li></ul>	O Teacher	O Support O Support	O CYBIS
	diddle of tutorial or test cybis out					
Dete: 6/2/93 Type: © General O Comment: Well, I understand this nov	Time: 4:44 p.m. System O Courseware	To:		O Teacher	O Support O Support	
·	Sentence a VERB?" is the title of	the section.				
Date: 6/2/93 Type: © General O Comment:	Time: 4:35 p.m. System O Courseware		O Learner		O Support O Support	
"Is the Word in This senter Hell, there's no sentence!	and this is the first question in the nace a VERB?" (And this is my second time doin ntence" capatalized above? That i	ng this - with	the same resu	It.) Something	g is wrong here	And why are the

Comment:  Hi Benji, I took the modem that it with intelligate. It rever before. I tried it s  Now this could be con	Time: System O Courseware  Chris gave me home last night and hoo night be my imagination, but I could has several times, and each time seemed quic neidence - or just because there weren't and y not be up to par with the job. What's y	From: ked it up. ve swom k to me. a lot of us	O Learner O Learner I still had tro I got through ers last night,	O Teacher puble getting in the intelligate	system much r	O CYBIS  it, but I also tried more quickly than
Comment:  Ben, Just wanted tolet instructors had. Then delete things. 2) Som have access to all opti Because of their expensed. This way was and Scot. This way was a second second.	Time: 12:54 System O Courseware  you know that I went through all of the nain reasons I did this are: 1) Miriam aske e of the instructors had the ability to deletions. When adding instructors to phiadmrience (and common sense) I allowed the ve have backup if we need it. I don't thin to know. Also, who are Nick and Rosa?	To: From: instructored that you ete and de nin, DO No of following k they kn	O Learner records and cu and/or I be the stroy informate OT press DA g instructors to ow that they h	O Teacher hanged many one only ones with and I thought for the same ave all of these	ho edit record, ght that was da n the same acce options as us: e options and w	O CYBIS  hat each of the add students, and ngerous. You and I ess as you.  Fred, John, Ludo, we shouldn't tell
Comment:  I had to back off that the einfor per PIRMAI Because I now use a	Time: 9:14 a.m. System O Courseware  approach because CLM was over-writing RY signon instead of each student signon nameset, I canhold 32 entries instead of I the student data is collected under the	To: From: those val The dat Howev	O Learner riables. I have e, time, usage, ver, you now n	O Teacher O Teacher converted the AND course §	group are now :	O CYBIS a nameset and store stored and displayed.
Comment:  Miriam, You are monknow so I can tell the I will send you a copincludes the lessons in the country of could use it to co	y of the lesson plan. It is done on a wee in which the students learned computer s impare to other methods being used. andplease relate tothe many others at cdc	To: From: ny studeni kly so it i kills to pr	O Learner is work on the s not prepared epare them to	O Teacher system. If yo for the whole use the Mac in	duration of the their homes.	O CYBIS  o monitor, just let me  eproject. But it also  I thought perhaps



Comment: Hi John, Great news, I have the	Time: System O Courseware  e intelligate number for "grantj" who I a  1. Sorry it took so long, she just got be	From: m also reg	O Learner O Learner	O Teacher	O Support Support on as I send you	O CYBIS
Comment	Time: System O Courseware		O Learner		O Support Support	
had to resend it on Ju I have a question abou are they 2 additional s	long for you to get the number for Tam I ne 3. She just called me today wit hthe at your two other new students. Are they students joining the program? Is we may not have to get new numbers,	numbe who new stude	nich is 412224 ents replacing	students who l	nave dropped fr	
Comment:  Hi Again, Just wanted to let you had to do to correct m This may cause the for having trouble getting I hope this doesn't car	Time: System O Courseware  know that when I was entering grantj in a gerror was erase his current record to erollowing to happen: 1) he may have to so on, he will now be able to.  use any problems for you or him, it's posing recorded correctly and had to make the	From:  ito the systemer him the tart from the ssible he we	O Learner  L	O Teacher  alized that I enter on any lessons some lessons	he has already	O CYBIS correctly. What I done, 2) If he was
Comment:  Hi Miriam, How are you? I hope My student, colon1 (I existing set up 2) hoo home and it yorks fin		From: they said to en we try disk and rd for the E	O Learner O Learner o say hi. I'm h to log on from a new start up Sell network.	O Teacher aving a problet her house. I v file, 4) logged Nothing has we	risited her hous on as her from orked!!	eed your feedback. ee and 1) tried LSH and from my

Date: 2/9/93 Time: Type: O General System Comment:			O Learner		O Support Support	
Thanks for contacting me. Corneliu on kind of compulsively, 3 or 4 time	s' password is now abolishe s per day. See ya, Ben.	ed. You	can send me a	note on the C	lybis system if	you want to, I log
Date: 2/9/93 Time: Type: O General System Comment:		Name: To: From:	O Learner	O Teacher  Teacher	Support Support	O CYBIS O CYBIS
Hi Ben, Have been trying to access experience. Unfortunately, each tim Well I've tried later - over a four h Signed, Hopelessly Disconnected (John, CFL - I feel like I'm writing to	e I try, I receive the messag our period today and I'm st	c, "you (	call cannot go t	through, pleas	e try again later	ey might ."
Date: 2/12/93 Time Type: OGeneral System	: 8:56 p.m. O Courseware	Name: To:	O Learner	O Teacher	Support	O CYBIS
Comment:  Ben, once again I am tryingto use II					O Support ses that mean th	
many people on the line, or is this a and voila, it worked.	system error? Anyway, I tr	ried it th	e good old wa	y, like us peop	ole from the old	world like to do,
I am feeling a little frustrated withth canfix this problem. Probably for n with their disks. Ok, I'm gonna lear	ow it is wisest to see if we c	could get	three addition	al disk drives :	so that learners	don't have thip-thop
						· · · · · <u>· · ·</u>
Date: 2/16/93 Time Type: O General System Comment:	: 3:37 p.m. O Courseware	To:	Terry O Learner O Learner	O Teacher O Teacher	<ul><li>Support</li><li>Support</li></ul>	O CYBIS O CYBIS
Hi, I spoke to Miriam today and she student screen. To see a list of curr command to see their stats. Also, stroubleshooting correspondance becahe said it's in the loose leaf book.	ent users we have to use the he said we should start usin ause other instructors can r	e philuse og the not	R command to tes file DREX(	see who is log CDSI to send n	gged on. We us nessages of pro	se the philuse blems and/or



Date: 2/17/93 Time: 9:31 a.m.  Type: O General System O Courseware  Comment:	Name: Miriam Hecksel  To: O Learner O Teacher Support O CYBIS  From: O Learner O Teacher Support O CYBIS
Hello Ben, How are you? I encouraged Terry to use the canwrite comments, etc. So go read it, I have started a no	notesfile = drexcdsi from now on for correspondence. This way, others one.
, ]	
Date: 2/17/93 Time: 7:57 p.m.	Name: Pedro
Type: O General System O Courseware  Comment:	To: O Learner O Teacher Support O CYBIS  From: O Learner Teacher O Support O CYBIS
Have gotten your notes but have problems adjustingtothe might be good for them Could not a access "drexodsi". p.m. on thursdays.  Pedro	e system. I expect the leaners to run into same problems. My bad experiences Termtalk is (Shift f2) I sign in around 9:00 p.m. during the week and 7:00
•	•
Date: 2/17/93 Time: 11:38 Type: O General System O Courseware Comment:	Name: Chris Hopkins To: O Learner O Teacher O Support O CYBIS From: O Learner O Teacher O Support O CYBIS
the fluter to set the class code as outlined when students	phi00010 class code is 10 and phifam class code is 99. I have modified use these groups and go into CLM courseware. I have added these groups to phiadmin" so the folks at drexel can edit them. I set phi 00010 as a new pilot could be set and ready to go. Chris
group, and printain for non-pilot activity. Everyaning si	out to see and ready to go. Chas.
1	
Date: 2/22/93  Time: 11:31  Type: O General System O Courseware  Comment:	Name: Miriam Hecksel  To: O Learner O Teacher Support O CYBIS  From: O Learner O Teacher Support O CYBIS
students are in phi0000_ for only a short time before the	the statistics look different. I will call you about this. Keep in mind that the ey go into a course. =philuse should somewhat match the amount of time they this help; I will check into this and call you today. hat he needed to use a completely different signon (phi00009) his password so I

Date: 2/22/93  Time: 8:37 a.m.  Type: O General System O Courseware  Comment:	Name: Ben To: O Learner O Teacher O Support O CYBIS From: O Learner O Teacher Support O CYBIS
figure it out. And, or couse, we need to discuss what's going to	70, "fromline 3." What do youmean? Call me or come visit and we'll o happen Wednesday when we work with the people from SLN. Have concentrate on, word-processing or Imsatt? Talk to you soon. Ben
Date: 2/23/93 Time: 11:04 Type: O General System O Courseware Comment: Thanks Ben Your information is VERY helpful! You are a sweetie. Was got an A on my first paper, thank to all of the great info you s See yal	Name: Miriam Hecksel To: O Learner O Teacher Support O CYBIS From: O Learner O Teacher Support O CYBIS  Bob Hubel able to help you today? I hope so. Take care of yourself. I sent me back in October. I will send you a final copy.
500 ya.	
Date: 2/23/93 Type: O General System O Courseware Comment: Have a great time. My new motto for life is HELP IS AVAI get back. But I will still see you Thursday if that is okay.	Name: Donna To: O Learner O Teacher Support O CYBIS From: O Learner Teacher O Support O CYBIS LABLE. I will still be trying to master basic grammar skills when you
Date: 2/23/93 Time: 10:57	Name: Dave Runt
Type: O General System O Courseware  Comment:  I assume this is taken care of  Looks like he forgot his p/w.  s0sysmsg/cdc 2/23/93 2:38 p.m. notes from lesson: plato  Possible security breach  signon = williamsk/phi00002  tries at password = 25  station = 0-4, nam port tb1b001  Please notify the group director.	To: O Learner O Teacher O Support O CYBIS  From: Learner O Teacher O Support O CYBIS



Date: 2/22/93 Time: 7:55 p.m.  Type: O General System O Courseware  Comment:	To:			Support Support	
Ben, Ben, Ben I copied the disks, we put in the student nur that it gets as far as typing in that damn 1 and return and says forever. I have HAD IT! WHAT IS WRONG NOW? And, system keeps freezing. My home number is 572-1633. HHI	s its connec , you would	ted and then in the control of the	t says TRYING	G 129.179.62.5	and it just sits there
Date: 2/22/93 Time: 12:46 Type: O General System O Courseware Comment:		O Learner		O Support Support	
Instructors: The process of monitoring and term-talking a leaf.  1. Type = philusers= at the What Lesson? > prompt.  2. Find the learner on the current user list shown.  3. Make a note of the group name next to the learners name.  4. Press Shift-Stop to return to main menu.  5. Type the new group name at the What Lesson? > prompt.  6. Choose selection 2 (Roster) from the menu.  7. Choose selection F (see who is Running) from the menu.  8. Choose either 1 to talk to the learner or 3 to monitor the learner.	. This is the			urrently doing.	
Date: 2/22/93 Time: 11:31 Type: O General System O Courseware Comment:	To:	Miriam He O Learner O Learner	O Teacher	Support Support	O CYBIS O CYBIS
Hi Ben, Sorry that I have not responded to your note about why the s students are in phi0000_ for only a short time before they go were in a specific curriculum such as = phigmaaa. Does this P.S. Pedro term-talked me today; he did not remember that h courseware. I helped him with this; he forgot his password s	o into a cour s help; I will be needed to	rse. =philuse: I check into the ouse a comple	should somew is and call you tely different s	hat match the a i today. ignon (phi0000	mount of time they  9) to see the

Date: 2/22/93

Time: 7:55 p.m.

Name: Donna

Type: O General System O Courseware

Comment:

To: O Learner O Teacher Support O CYBIS From: O Learner Teacher O Support O CYBIS

Ben, Ben, Ben,.. I copied the disks, we put in the student numbers, the first two people logged on, and then every time we tried it after that it gets as far as typing in that damn 1 and return and says its connected and then it says TRYING 129.179.62.5 and it just sits there forever. I have HAD IT! WHAT IS WRONG NOW? And, you wouldn't beleive the trouble I am having typing this note. The system keeps freezing. My home number is 572-1633.



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Date: 2/23/93 Time: 10:57 Type: O General System O Courseware Comment: I assume this is taken care of Looks like he forgot is p/w.	Name: Dave Runte  To: O Learner O Teacher O Support O CYBIS  From: Learner O Teacher O Support O CYBIS
pauses in the prompts. It also was giving an INVALID USER I played around with it a little, took out some of the pauses and now the autosignon works too.  Once you're on, it still runs a little sluggish, but at least the log times! Anyway, I made sure that I was working from a floppy	I returns, and added a few of my own ideas an not only does it work, but on process is better. I must have connected and disconnected a hundred disk, using the same system as my students. I seem to work fine now. d. I'm calling this new document Intelligate5. Let's give everyone the
pauses in the prompts. It also was giving an INVALID USER the pauses and returns, and added a few of my own ideas and non, it still runs a little sluggish, but at least the logon process is Anyway, I made sure that I was working from a floppy disk, u	Name: Terry To: O Learner O Teacher Support O CYBIS From: O Learner O Teacher Support O CYBIS rst of all, it rangeally slow because of all those carriage returns and NUMBER message. I played around with it a little, took out some of ot only does it work, but now the auto sign-on works too. Once you're s better. I must have connected and disconnected a hundred times! using the same system as my students. I seems to work fine now. d. I'm calling this new document Intellligate5. Let's give everyone the t. Terry.
Date: 2/25/93 Time: 1:49 p.m. Type: O General System O Courseware Comment:  I read your note today. I try to use a student's disk at my home This is just to test if I can write a note to you. See you later. Sam	Name: Sam To: © Learner O Teacher O Support O CYBIS From: O Learner © Teacher O Support O CYBIS e and it works.



Date: 2/25/93  Time: 1:49 p.m.  Type: O General System O Courseware  Comment:  I read your note today. I try to use a student's disk at my home later. Sam	Name: Sam To: O Learner O Teacher O Support © CYBIS From: Learner O Teacher O Support O CYBIS e and it works. This is just a test if I can write a note to you. See you
Date: 2/26/93 Time: 2:22 p.m. Type: O General System O Courseware Comment: Ben, my student "legares" is having no luck with her password my manual, but I have "inspect only" rights to her file. As usi	Name: Donna To: O Learner O Teacher Support O CYBIS From: O Learner Teacher O Support O CYBIS  d (31 attempts). It is luvme according to her. I tried to change it using the sual, HELP, HELP. Do you get tired of hearing from me?
Date: 2/26/93  Time: 2:22 p.m.  Type: O General System O Courseware  Comment:  Ben, my student "legares" is having no luck with her password manual, but I have "inspect only" rights to her file. As usual,	Name: Donna To: O Learner O Teacher Support O CYBIS From: O Learner Teacher O Support O CYBIS d (31 attempts) It is luvme according to her. I tried to change it using my HELP, HELP. Do you get tired of hearing from me?
Date: 2/26/93 Time: 2:22 p.m. Type: O General System O Courseware Comment: Ben, my student "legares" is having no luck with her password manual, but I have "inspect only" rights to her file. As usual,	Name: Donna To: O Learner O Teacher Support O CYBIS From: O Learner Teacher O Support O CYBIS d (31 attempts) It is luvme according to her I tried to change it using my Help, Help. Do you get tired of hearing from me?



Date: 3/1/93 Time: 11:04  Type: O General System O Courseware  Comment:		O Leamer	• Teacher • Teacher		
I am sending you a fax with this same information, but here up the communication. There are carets(), asterisks (*), nu message is coming, number signs indicate delays to make th something, and # creates this delay), m's indicate carriage re waits and so on may be different from the mac version, becastep at a time, you will notice that the network prompts you press ENER." It is these messages that the computer is resp (formerly "below, below, below, ENTER, ENTER," now "below, below, below, ENTER, ENTER," now "below, below, below, below, ENTER, ENTER," now "below, below,	umber signs we system wa eturns, and I nuse each con with statem bonding to.	(#), and m's. I tit (sometimes m not sure ab- mputer will ru- tents like "Ent The changes f	I'm not sure, be intelligate den out the asterish at a different er your choice rom the old sign.	ut I think the c nands a pause is. However, I speed (sigh). below:" or "Ir gnon are both i	arets indicate that a before entering think some of the If you log on one nput your user id and n changed prompts
Date: 3/4/93 Time: 3:23 p.m. Type: O General System O Courseware Comment: Dear Terry, This thing is damn slow!	To:		O Teacher Teacher		
Date: 3/4/93  Time: 3:23 p.m.  Type: O General System O Courseware  Comment:  Dear Terry,  This thing is damn slow!	To:		O Teacher  Teacher		
Date: 3/8/93 Time: 11:15 Type: O General System O Courseware Comment:	From:	O Learner O Learner	O Teacher  Teacher	O Support	O CYBIS
Bob, Terry of grp. phiadmin gave me a diskette that has scri this is the file my learners need to access the system. I will access a make the changes in config files as per the instruction	proceed on t	hat assumptio	n and install it	, in addition I v	will replace the



Date: 3/8/93 Time: 10:54 Type: O General System O Courseware Comment:	Name: Burnettv  To: O Learner • Teacher O Support O CYBIS  From: • Learner O Teacher O Support O CYBIS
To Donna  My computer stopped in the middle of the lesson. Why I was a Somebody doesn't want me to work on this computer. Why m From Vanessa Burnett By now and see you on Monday	doing a good job and a wried message went right through the lesson. e and why now.
Date: 3/8/93 Time: 11:15 Type: O General System O Courseware Comment:	Name: Pedro To: O Learner O Teacher Support O CYBIS From: O Learner Teacher O Support O CYBIS
that this is the file my learners need to access the system. I wi	ot files in it. Among which, there is a file called intgate.sor. I believe all proceed on that assumption and installed it, in addition I will replace tions of the readme file. Let me know if I should proceed differently.
Date: 3/9/93 Time: 11:25 Type: O General System O Courseware Comment: Ben - Are you back? I couldn't remember the date, so I am sen	Name: Donna To: O Learner O Teacher O Support O CYBIS From: O Learner O Teacher O Support O CYBIS ding this to you and Terry. Our keyboards are possessed. We
Date: 3/9/93 Time: 11:40 Type: O General System O Courseware Comment: Ben, Are you back? I couldn't remember the date, so I am sen	Name: Bob Hubel  To: O Learner O Teacher Support O CYBIS  From: O Learner Teacher O Support O CYBIS  ding this to you and Terry. Our keyboards are possessed. We



Date: 3/10/93 Time: 11:40 Type: O General System O Courseware Comment: (Ben, this is what I sent to Pedro:) As I mentioned to you on the phone, the script on the dis used After we discovered their change, we then issued a FAX to Ber version no longer work.	To: From: to work f	O Learner ine with Intell	O Teacher O Teacher	Support E they changed	O CYBIS their signon pages.
Date: 3/10/93 Time: 4:31 p.m. Type: O General System O Courseware Comment:  Welcome back! I'm glad you didn't disappear in the floods or gifor the PC instructor at CWEP. Mine (the old) seems to work message that a new version was needed.  See ya!	To: From: get frighter	O Learner ned to death by	○ Teacher ● Teacher y tarantulas. I n nen she tried to	O Support seed the new so	O CYBIS  fitware for the IBM
Date: 3/10/93 Time: 11:40 Type: O General System O Courseware Comment: (Ben, this is what I sent to Pedro:) As I mentioned to you on thephone, the script on the disk used After we discovered their change, we then issued a FAX to Ber version no longer works	To: From:	O Learner fine with intel	O Teacher     Teacher	O Support  E they changed	O CYBIS  I their signon pages.
Date: 3/10/93 Time: 4:31 p.m.  Type: O General System O Courseware  Comment:  Welcome back! I'm glad you didn't disappear in the floods or g  for the PC instructor at CWEP. Mine (the old) seems to work  message that a new version was needed. See ya!	To: From: get frighter	O Learner ned to death by	○ Teacher	O Support need thenew so	O CYBIS  ftware for the IBM



Comment:	System O Courseware	From:	O Learner	Teacher	<ul><li>Support</li><li>Support</li></ul>	<b>O</b> CYBIS
folder and just replace go into intelligate5 and read up on families i n	have intelligate5. We use a doc call power Learning and MAC Cybis? No liput their student numbers in like I duthe CD handbook? I sent a note to Born you, if you are closer. Or, I can see the control of	faybe there i id on Power en asking for	s another file t Learning? Ar the new IBM	.oo, I am at my nd, what is a fa software for C	IBM so I can't mily? Is there WEP, Maybe	check. Also, do I a place I should I could arrange to
Date: 3/11/93 Type: O General Comment:		From:	O Learner O Learner	O Teacher	O Support Support	O CYBIS
up the communication message is coming, nu something, and # creat waits and so on may be step at a time, you will press ENTER." It is the	with this same information, but here. There are carets (*), astericks (*), more signs indicate delays to make the sthis delay), m's indicate carriage red different from the mac version, becall notice that the network prompts you nese messages that the computer is report, below, ENTER, ENTER, now "	number signs ne system wa eturns, and I' ause each con with statem esponding to.	(#), and m's.  iit (sometimes m not sure abo mputer will rus tents like "Ent The changes	I'm not sure, b intelligate den out the asterick n at a different er your choice from the old s	nut I think the canands a pause b s. However, I speed (sigh). I below: or "In ignon are both	arets indicate that a efore entering think some of the f you log on one uput your userid and in changed prompts
Date: 3/11/93 Type: O General Comment:	Time: 11:23 System O Courseware		O Learner		O Support Support	
Type: O General Comment: Network Prompt (blank) *****below: ***below: ****below: *****ENTER.  *****following: Again, this works from	Time: 11:23  System O Courseware  Macintosh Response  "#"m"#"m  2158756602"m"#"#"  111111"m"*"*"*  6315"m  1"m  "*1"m  n my mac, with my times. I hope well be online tonight for some time. L	To: From: e can find the	O Learner O Learner	O Teacher	<b>Support</b> Support	OCYBIS



Date: 3/12/93 Time: 10:24 Type: O General System O Courseware Comment:  Ben, I have trouble accessing the phi00009 number from Perki least that's what the computer tells me. What to do? Did you	Name: Ludo To: O Learner O Teacher Support O CYBIS From: O Learner Teacher O Support O CYBIS ins Morris at 1981 N. Wookstock Street. My password is invalis, at get my phone messages? Ludo
Date: 3/14/93 Time: 10:38 Type: O General System O Courseware Comment: Hi Ben, I read your note on 3/12/93. One of my students has an IBM of me know or bring it with you on March 18. See you at MCOL. Sam	Name: Sam To: O Learner O Teacher Support O CYBIS From: O Learner Teacher O Support O CYBIS computer and wanted to have a system disk. If you have one, please let
Date: 3/14/93 Time: 10:38 Type: O General System O Courseware Comment: Hi Ben, I read your note on 3/12/93. One of my students has a one please let me know or bring it iwth you on March 18. See	Name: Sam To: O Learner O Teacher Support O CYBIS From: O Learner Teacher O Support O CYBIS In IBM computer and wanted to have a system disk. If youhave you at MCOL.
Type: O General System O Courseware <u>Comment:</u> Hey Ben,	Name: Miriam Hecksel  To: O Learner O Teacher Support O CYBIS  From: O Learner O Teacher Support O CYBIS  bel need to get involved again or possible Jeff Bauer who wrote the

PCCK software and recently added the scripting for you? Please let me know; I could have Jeff call you today.

Take care. Miriam



Date: 3/16/93 Time: 2:13 p.m. Type: O General System O Courseware Comment:		O Learner		<ul><li>Support</li><li>Support</li></ul>	
Ben, Today I am working on the computers at Red Shield cannot access IMSATT through the 00009 number. My p Hope you got my messages regarding the conference, the IMSATT, etc. Hope to get together with you soon. Oh, b Thanks for all your help so far. You should know that the the computer, and you received high praise (well, of course	assword seems next class we way, have the way, have people who c	s to be invalid would like to s we you or Jan l ame to the wo	. Any ideas? schedule to mal heard anything orkshop wree ex	ke the group make the three ex	ore familiar with ternal hard drives? arming more about
Date: 3/16/93 Time: 2:21 p.m. Type: O General System O Courseware Comment:		O Learner		Support O Support	
Ben, while using one computer at Red Shield, the other co You have any suggestiosn as to what the problem could be other computer I can access IMSATT from the other comp Ludo	e? I tried to re	getting a busy connect seven	signal, even th al times. Now	ough it was tw that I have disc	o different lines. connected from the
Date: 3/16/93 Time: 3:17 p.m. Type: O General System O Courseware Comment:	To:		Teacher	O Support Support	
To: Pedro cc: Ben Have you get PCCK working no attempts) may not be optimized, but if you're still having Enter the 1st column, followed by the 2nd.	w with scripts g problems, tr	? Here's a scr y this one. (1	een that works To fit it all in 1	for me (at leas pnote, I put it	it on 3 consecutive in 2 columns.
1. send ATDT12159289800 7. send wait 2	13. expect b		19. expect EN 20. send 1	TER	
2. expect CONNECT 8. send <cr> 3. send wait 2 9. send wait 2</cr>	14. send gate 15. send wa	•	20. send i 21. send wait	2	
4. send <cr> 10. expect below: 5. send wait 2 11. send 3019893717 6. send <cr> 12. send wait 2</cr></cr>	<ul><li>16. expect t</li><li>17. send 16</li><li>18. send wa</li></ul>	85	22. expect foll 23. send 1	lowing:	
Date: 3/16/93 Time: 9:32 a.m.  Type: O General System O Courseware  Comment:	To:		O Teacher	<ul><li>Support</li><li>Support</li></ul>	
Hey Ben, What is going on with Pedro and the access soft wrote the PCCK Software and recently added the scripting Miriam.	tware? Does I g for you? Plea	Hubel need to ase let me kno	get involved aq w; I could have	gain or possibly e Jeff callyou to	Jeff Bauer who oday. Take care



cannot access IMSATT through the 00009 number. My pas regarding the conference, the next class we would like to sch together with you soon. Oh, by the way, have you or Jan her	Name: Ludo To: O Learner O Teacher O Support O CYBIS From: O Learner Teacher O Support O CYBIS esidence accessing IMSATT under my number in phiadmin. However, I sword seems to be invalid. Any ideas? Hope you got my messaes neduel to make th group more familiar with IMSATT, etc. Hope to get and anythingre: the three external harddrives? Thanks for allyou help so ishop were excited about learning more about the computer, and you se workshop. Talk to you soon I hope! Ludo
Date: 3/16/93  Time: 2:21 p.m.  Type: O General System O Courseware  Comment:	Name: Ludo To: O Learner O Teacher Support O CYBIS From: O Learner Teacher O Support O CYBIS
Ben, while using one computer at Red Shield, the other con You have any suggestions as to what the problem could be? theother computer I can access IMSATT from the other com	nputer kept getting a busy signal, even though they are two different lines. I tried to reconnect several times. Now that I have disconnected from puter.
Ludo	
Date: 3/18/93 Time: 5:29 p.m. Type: O General System O Courseware Comment:	Name: John To: O Learner O Teacher Support O CYBIS From: O Learner Teacher O Support O CYBIS
Hello, Hello, Hello, I related what appeared to be a system failure at the MCOL in expressing similar concerns. I spoke with her and she describ	neeting today, and when I arrived home, I had a message from a learner bed crooked lines appearing on her screen along with a locking of her learners this morning at the Necetown site and she has had this happen at e was pretty frustrated.
Date: 3/22/93 Time: 12:46  Type: O General System O Courseware  Comment:	Name: Terry  To: O Learner O Teacher O Support © CYBIS  From: O Learner O Teacher © Support O CYBIS
Instructors: The process of monitoring and term-talking a le  1. Type=philusers= at the What Lesson? prompt.  2. Find the learner on the current user list shown.  3. Make a note of the group name next to the learners name  4. Press Shift-Stop to return to main menu.  5. Type the new group name at the What Lesson? prompt.  6. Choose selection (Roster) from the menu.  7. Choose selection F (see who is running) from the menu.  8. Choose either 1 to talk to the learner or 3 to monitor the	e. This is the lesson that the learner is currently doing.

Date: 3/2 Type: O Comment basic math	General	Time System	: 5:23 p.m. O Courseware		O Learner		O Support O Support		
Date: 4/2 Type: O Comment	General		: 8:43 p.m. O Courseware		O Learner		<ul><li>Support</li><li>Support</li></ul>		
CLM instru- Also, meint had to login that option	ctor: there yrec and me to get back in the instructors.	is an error in etzcherl both k on the syste actor's optioss	ou're fine. One of my learn the data returned from CY said they were working in tim. I'm no expert, but this in menu, but it wouldn't let my group hassled by this a	BIS lesson a lesson a sounds lime, I onl	n test "qzsmte: and all of the s ike someone, a y had read cap	st". Earnered sudden they we un instructor, sabilities. Is the	score is greater are back at the l signed them ou	than possible score ogin screen. They it. I tried t ochang	e
Date: 4/ Type: O	General		: 9:07 a.m. O Courseware	To:		O Teacher	<ul><li>Support</li><li>Support</li></ul>		
Terry, Do y you are required kicked off to on. They we changed.  As far as the See ya!  Miriam	ou want mouesting. Are by the operation would not have at error me	re you sure thators here. Date ave been able ssage in CLM	take away the option to "at is what happened to these live Runte was signed on at to sign on again, so may for I will have someone loom on your Literacy Conference	se student nd he got oe this wa k at it rigl	s? If they wern kicked off with a not the case. Int away!	e working on S n no warning a Let me know	Saturday, in the nd he saw a few	evening, they were Philly users sign	e
Comment Hello, I have chan reason you	General  ged the opt couldn't ch	System ions for each ange these op	: 9:20 a.m. O Courseware  instructor so that they can tions is because there is a de in case you need to mode	To: From: no longer security of	O Learner sign off a stude on this gro	O Teacher O Teacher dent (if that is up so that not	just anyone car	OCYBIS  happening.) The	)



Date: 4/26/93 Time: 3:03 Type: O General System O Courseware Comment:	To:	Nat Kannar O Learner O Learner	O Teacher		
Dear Donna, I spoke to bob huntsberger at bell atl, about the delays in getti IMSATT has leased lines to Minn but to use them we get char on Internet. It could be speeded up if Bell invested \$20,000 in other alternatives. I am sorry about this. But I believe there a Kannan cc: Ben Burenstein	ged \$5-\$6 a special	6 <mark>per hr. It wil</mark> hardware. But	I be uneconon t they don't ha	nical for this po ve the budget.	roject. So we settled I will try to explore
Date: 4/29/93  Time: 4:10 p.m.  Type: O General System O Courseware  Comment:		Terry O Leamer O Leamer			
Hello Instructors: If any of your learners have been experience the main menu, please be patient; CDC has been notified of the Also, if any of your learners are experiencing a "loop" with the the reinforcement curriculum, and still can't get past the module shortly.  Thank you CDC for being so attentive to our problems. Terry	is probler Languag le, this to	m and is trying se and Math cu	very hard to s rriculum, mea	solve it. ning that they	master the test, take
Date: 4/30/93 Time: 5:23 p.m. Type: O General System O Courseware Comment:	To:	Pedro O Leamer O Leamer			
You are welcome  The the copy of the diskettes. I'll try to get originals to you by	y Monday	, Mary 3rd.			
PPM.1830 hrs.4/30					
Date: 5/11/93 Time: 8:19 p.m. Type: O General System O Courseware Comment:notes from lesson: plmretum curriculum = obslang module = +	To: From:	Legares O Learner O Learner	O Teacher	O Support	O CYBIS
The computer is acting really crazy. It keep on doing tosts ov only three users on the computer.	er again.	It will not com	nplete the tests	s. Why is it do	ing that? They're



Date: 5/18/93 Time: 10:29 Type: O General System O Courseware Comment:	To:		O Teacher	<ul><li>Support</li><li>Support</li></ul>	
Terry, I just got off the phone with Chris. He instructed Bob Hubel to is going to modify =philuse so that you can pull in the old dat retrieve some of the statistics that you need. Chris hopes to ha note or call you when you are able to get SOME of the old date.	a. There was the pro	will be some or ogramming do	overlap, obvio nes as early as	usly, but you w	ill be able to
Date: 5/22/93 Time: 2:37 Type: O General System O Courseware Comment:		O Learner		<ul><li>Support</li><li>Support</li></ul>	
Hi Ben, from now on please do not use the 800 number at all. option number 3 I believe. You can find your local access nu localnumber and you will be prompted for a host. Type HOM much better speed than Bell Atlantic. Between now and June Hopefully by then we will figure out some other alternative. end of the project. You may have to make appropriate change the 27th. NAT.	mbers for ER and pr l, all the s The Phiad	2400 baud or ress carriage re tudents can us min group sho	9600 baud continuous. Viola. See the compuse ould use only continuous.	nnections from You will be lin eve access at m compuserve fro	philly. Dial you ked to cybis as y expense. m now on until the
Date: 5/26/93 Time: 2:40 p.m. Type: O General System O Courseware Comment:	To:		O Teacher	<ul><li>Support</li><li>Support</li></ul>	
Hello, Terry Hmmmm, The two problems you just reported are different from Term-Comment when they have these problems. But back to let me know. I will also go in and take a look at it. As far as like either she is pressing the wrong keys or the keyboard is far what course she is in (and Module) and I will see what we can I am sad to hear about the farewell. I wish we could have kep M	your ques Lillian, v uulty. I ha do.	tions. If you what course is we never hear	discover anyth he in? Witho d of this before	ing wit hthe So ut sounding ins	scial Studies, please sensitive, it sounds
Date: 5/28/93 Time: 8:07 p.m. Type: O General System O Courseware Comment:	To:	Mcsorleyj O Learner  Learner	<ul><li>Teacher</li><li>Teacher</li></ul>	O Support O Support	O CYBIS O CYBIS
Scot or anyone out there - from mcsorleyj in phi00003: for tweeps taking Jack out and saying DATA TOON CONTINUE over from beginning. Jack cannot work like this, it's crazy!!!	or SHIFS	TOP!!!! Then	you have to to	stally start tutor	nal or drill or test

Date: 5/28/93 Time: 6:58 p.m. Type: O General System O Courseware Comment:  Mesorleyj - doing the same thing as last night: in middle of and you have to start tutorial again. Does anyone really read	Name: Mcsorleyj To: O Learner O Teacher O Support © CYBIS From: © Learner O Teacher O Support O CYBIS tutorials, cybis goes back to DATTCONTGIN DATA TO CONTINUE these notes? The same things keep happening and no one answers me.
Date: 6/1/93  Type: O General System O Courseware  Comment:  Hi Terry,  Well I got on using intelegate. Boy is it slow today. Maybe by  Scot	Name: Scot To: O Learner O Teacher Support O CYBIS From: O Learner Teacher O Support O CYBIS  there is a wire problem.
Date: 6/1/93 Time: 1:24 p.m. Type: O General System O Courseware Comment:  Have you sent the new logon information to the other centers me to do it let me know.	Name: Terry To: O Learner O Teacher O Support O CYBIS From: O Learner O Teacher Support O CYBIS syet? If not we have to hurry so as not to create problems. If you want
Date: 6/8/93  Type: O General System O Courseware  Comment:  Hi Terry,  I am waiting for an internet password of Tam Le who lives at 457-0148.  Please also register two new students who also interest in this  Ha, Quy N., 4928 N. Broad Street, Phila., PA, 19141, 455-86  Pham, Trang P., 1127 W. Rockland Street, Phila., PA 19141  Thank you for your time and hope to hear from you soon.  Sam	673



Date: 6/9/93 Time: 9:19 a.m.
Type: OGeneral System OCourseware

Name: John

To: O Learner O Teacher O Support O CYBIS From: O Learner O Teacher O Support O CYBIS

Comment:

Hi Terry:

P-noting to see where we stand on securing a new account number for CFL's "last, but not least" twelth learner.

If you would, please leave a note.

Thank you,

John

ERIC

# ATTACHMENT 8: EXAMPLES OF CYBIS USAGE DATA



Curriculum/Group: Øbsla	ng/phibs	gaa	5	/19/93	9:08 AM	
Student	Class	VMS	Course	Current Module		B
amiln************************************	2 9 8	1 1 1	1 1 3	X M M		þ
blakeneym***#88884 bob elmore***88888 brownr******88881	4 9 1	1 1 1	1	C		
burnettv*****88888 burrisc*****88884	8	1 1	2	D I		
byrdm*******#88888 * chris*****phi88888 chris*******88888 cooneym*****88888	8 1 9 8	1 1 1	2	E M		
corneliusa***88886 * dave*****phi88888 * dave runtephi88888 donna******	6 1 1 9	1 1 1 1	1	×		
dumpsonj ****#ØØØØ2 enochv*****#ØØØØ8	2 8	1 1	1 1	A A	·	_
fieldsc*****#00001 fred********00009 freemanc****00008 freemenc****00008	1 9 8 8	1 1 1 1	2	FC		
grayd*******fam grayd*******ØØØØ2 gwup*******	8 99 2 7	1 1 1	1 3 1	M > O O O O		
hoangi*******00007 hoangl******00007 holderp*****00006 johnsone****	7 7 6 2 4	1 1 1 1	1 1 1	000		
johnsonm****#80004 john*******#00009 kucouskia***#00002 legares*****	4 9 2 8 9	1 1 1 1	1 1 1 3	סאססס		
lequyen*****#ØØØ9 ludo*******#ØØØ9 mcintyrec***#ØØØ2	9 9 2	1 1 1	1 1	Ĉ ∟		
mcsorleyj****ØØØØ3 metzcherl****ØØØØ2 millern*****ØØØØ1	3 2 1	1 1 1	3	E		
miriam*******00009 morgans*****00001 nat********00000 neale******	9 1 9 1	1 1 1 1 1	1	Ď C		
nguyenth****#ØØØØ7 nguyent*****#ØØØØ7 oooneym*****#ØØØØ8 parkere*****	1 7 8 3 4 6 9 8 6 7	1 1 1	1	0		
perezw******#00004 sammonsm*****00006 sam********00009 sanderss****	4 6 9 8	1 1 1	1 4	0 E		
santom******#88886 son1********88887 sonx*******	6 7 7	1 1 1	1	z		

LAB for listing options

Enter student name for individual records >>

PHIBSGAA

Basic Skills Grammer



riculum/Group: Øbsla				Current	Chabite
Student	Class	VMS	Course	Module	Status
	2	1	1	- J	
swisherj****#00002	9	1	1	G	
terry*******#############################	3	ī	1	С	
thallerh****#ØØØØ3	2	ī			
torresc******#ØØØØ2	8	ī			
torrest******ØØØØ8	1	ī	1	A	
turnerc*****#00001	ż	ī	1	₿	
vuongp*****#######	<del>'</del> 2	i	_		
vuongtc*****#ØØØØ7	· -	1	1	D	
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	(	4	î	Ĉ	
a+<0na************	4	1	1	J	
~~~~~*********************************	8	i i	1	Ă	
<del>~</del> ************	<u> </u>	1	7	Ŕ	
yuy ** * * * * * * * ØØØØ7	7	1	2		

v = curriculum mastered

NEXT for more students

LAB for listing options

```
4:34 PM
Qurriculum/Group: Ebslang/phibsgaa
                                            5/17/93
                                COURSES:
                                            7 8 9 1 5 1 1 1 2 1 3 1 4 1 5
                      Class
                                        5
 ldent
                            2
   amiln*******00002
                                ben**********ØØØ
                                8
   bielawskic***00008
                            4
   blakeneym****00004
                            9
                                bob elmore***00000
   brownr*******0001
   burnettv****#ØØØØ8
                            8
                                burrisc******00004
                            4
                            8
   byrdm*******00008
                                not started
                            1
   chris****phi00000
                            9
   chris*********
   cooneym*****#ØØØØ8
                            8
                                _
                            6
   corneliusa***ØØØØ6
                                not started
   dave*****phi0000
                                not started
   dave runtephi@2000
                            1
                            9
   donna********00009
   dumpsonj*****ØØØØ2
                            2
                                8
   enochv*******00008
                                fieldsc******00001
   fred*********
                            9
                                8
                                freemanc****#00008
   freemenc****#00008
                            8
                                99
   grayd******* fam
                                grayd*******00002
                            2
   Ewup********00007
                                7
   hoangi ******00007
                                7
   hoang1 * * * * * * * ØØØØ7
                                holderp*****#ØØØ6
                            6
                                2
   johnsone*****ØØØØ2
   johnsonm****#ØØØØ4
                            4
                                9
   john********ØØØØ9
                                2
   kucouskia****00002
                                legares*****00008
                            8
                                9
    equyen*****00009
                                ludo**********
                            9
                            2
   mcintyrec****ØØØØ2
                                mcsorleyj***#00003
                            2
   metzcherl***#ØØØØ2
                                millern*****#ØØØØ1
                            1
   miriam******ØØØØ9
                            9
   morgans*****00001
                            1
                                nat**********
                            9
   neale*******00001
                            1
                            77
   nguyenth****#ØØØØ7
   nguyent*****Ø0007
                            8
   oooneym*****ØØØØ8
   parkere*****09303
                            3
                                4
   perezw******00004
                            6
   sammonsm****#ØØØØ6
   sam*********ØØØØ9
                            9
   sanderss****#00008
                            8
                            6
   santom******00006
   son1*********ØØØØ?
                                 50nx***********
                                       started
                                                 = mastered
   curriculum mastered
```

LAB for listing options

Curriculum/Group: Øbs	lang/phib	sgaa		5/17/9	3 4:34 PM
Student	Class	COURS 1 2 3	ES: 4 5 6	7 8 9 <sup>1</sup>	Ø <sub>11</sub> 12 <sub>13</sub> 14 <sub>15</sub>
swisherj*****################################	93281777287	0 0 0 0 0 0 0 0 0 0 0 0 0			
	ed	=	start	ed =	= mastered
NEXT for more stud	dents	LAB	for li	isting o	ptions

Curriculum/Group: Øbs	lang/p	hibse	aa		5/17	/93	4:34	PM
COURSE #1	CLASS	•		TIVI	MNIOR	ADOT	UVWX '	77 <b>4</b> 4
amiln*******00002		HOCU	EF GH	TOKE-	MINOF	URS I	0000	1207
ben**********	9							
bielawskic***ØØØØ8	g l						-2	
blakeneym****88884	4							
bob elmore***##################################	9							
brownr******#ØØØ1	1							
burnettv****#ØØØØØ	8							<b>3 3 3 3</b>
burrisc*********	4							
burdm*******ØØØØ8	8		<b></b>					
* chris****phi00000	1							
chris********	9							
	8							
corneliusa***ØØØØ6	6							
* dave*****phi88888	+ 1							
* dave runtephi88888	1   9				<b>M</b> = = -			
donna*******ØØØØ9	2				<del></del> -			
dumpsonj *****ØØØØ2 enochv******ØØØØ8	8							
EUOCUA++++++	1							
red***********	1 9							
freemanc*****ØØØØ8	á l							
freemenc*****ØØØØ8	8							
grayd******fam	99		a					
grayd********00002	2							
gwup********ØØØ7	<u> </u>							
hoangi************	7						~	
hoang1******ØØØØ7	7							
holderp*****ØØØØ6	6	<b>==</b> -						
i ohnsone****ØØØØ2	2		Į		1	ļ		
johnsonm****ØØØØ4	4							
john**********	9							
kucouskia***#00002	2							
✓ legares******ØØØØ8	8							
lequyen******ØØØØ9	9 9							
ludo*********ØØØØ9	2	l						
mcintyrec***#ØØØØ2			<del>                                     </del>			<del>  </del>		
	3							
metzcher1****00002	2							
millern*****#00001	9				1		1	
miriam********	1							
morgans******00001								
nat************************************	1					1		1
nguyenth*****ØØØØ?	7	1	1	i		1		1
nguyent*****ØØØØ7	· · · · · · · · · · · · · · · · · · ·	1				1		
000neym******ØØØØ	8							
parkere*****#00003	3							
Derezu**********	4	1		1				
sammonsm****#00006	. 6		1					
*****************	9					.	1	
	8	****						
	6	1	1		.		1	
son1***********	7							
50nx*********	7					ــــــــــــــــــــــــــــــــــــــ		1
v * course master	ed.	- =			artec	= =	mast	ered
		- =		gned				

LAB for listing options

Enter student name for individual records >>

BEST COPY AVAILABLE



Curriculum/Group: Øbslang/phibsgaa					7/93	4:34	PM
COURSE #1	CLASS ABC	) EFGH	IJKL	MNOP	ORST	UVWX	YZ\$%
swisherj *****################################	2932817772877						
	d -	modu assi	le sta ened	arted	= =	maste	ered

LAB for listing options

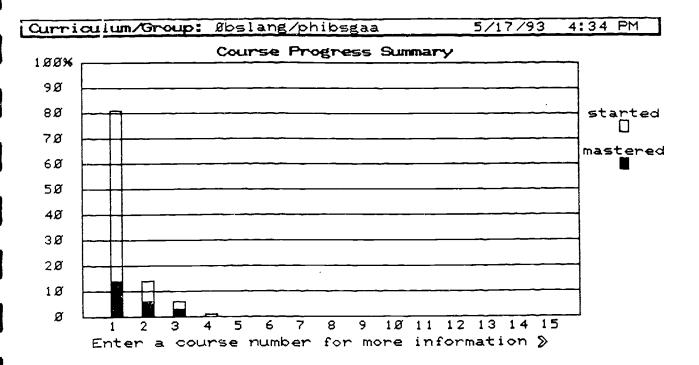
Curriculum/Group: Øbslang/phibs	gaa	5/17/93	4:34 PM
Student	Class	Last Module Mastery	
amiln******#ØØØØ2 ben******#ØØØØ9	2 9	5/86/93 2/15/93	
bielawskic***ØØØØ8	8	5/16/93	
blakeneym***#00004 bob elmore**#0000	4 9	Unknown 4/Ø8/93	
brownr******ØØØØ1 burnettv****ØØØØ8	1 8	Unknown 4/26/93	
burrisc******00004	4	Unknown	
byrdm******#ØØØØ8 chris****phiØØØØØ	8 1	4/Ø3/93 not started	4
chris*********	9	Unknown	-
cooneym*****#ØØØØ8 corneliusa***ØØØØ6	8 <b>6</b>	3/27/93 Unknown	
dave*****phi00000	1	not started	
dave runtephi00000 donna******00009	1 9	not started	a
dumpsonj****#ØØØØ2 enochv*****#ØØØØ8	2 8	4/Ø1/93 Unknown	
fieldsc*****ØØØØ1	1	4/21/93	
fred*******ØØØØ9	9	1/20/93	
freemanc****#ØØØØ8 freemenc***#ØØØØ8	8 8	Unknown Unknown	
grayd***** * * fam	99	5/1 <i>Ø/</i> 93	
grayd*******ØØØØ2 gwup*******ØØØØ7	2 7	5/13/93 4/3Ø/93	
hoangi******ØØØØ7	7	5/13/93	
hoangl******#ØØØØ7 holderp*****ØØØØ6	7 6	5/06/93 4/28/93	
johnsone****#ØØØØ2	2	Unknown	
johnsonm*****ØØØØ4 john*******ØØØØ9	4 9 2	3/31/93 3/1Ø/93	
kucouskia****ØØØØ2 legares*****ØØØØ8	2 8	3/Ø4/93 5/13/93	
1 equyen*****ØØØØ9	9	1/Ø5/93	
ludo*******ØØØØ9 mcintyrec***ØØØØ2	9 2	Unknown 2/17/93	
mosorleyj****ØØØØ3	3	5/16/93	
metzcherl****ØØØØ2	2	3/11/93	
millern*****00001 miriam*****00009	1 9	Unknown Unknown	
morgans*****#ØØØ&1 nat*******#ØØØØØ	1 9	3/Ø2/93 3/19/93	
neale*******00001	1	Unknown	
nguyenth*****ØØØØ7 nguyent*****ØØØØ7	7 7	Unknown Unknown	
oooneym****#ØØØØ8	8 3	2/24/93	
parkere*****ØØØØ3 perezw******ØØØØ4	3 4	Unknown Unknown	
sammonsm****ØØØØ6	6	Unknown	
sam*********ØØØØ9 sanderss****ØØØØ8	9 8	5/03/93 5/07/93	
santom******ØØØØ6	6	Unknown	
50nl*******#ØØØØ? 50nx*******ØØØØ?	7 7	5/1 <i>0</i> /93 Unknown	
<del></del>			

NEXT for more students LAB for listing options



urric	ulum/Group: Øbslang/phib	sgaa	5/17/93	4:34 PM
	Student	Class	Last Module Mastery	<b>2</b>
	swisherj*****80002 terry******80009	2 9	5/Ø6/93 3/Ø2/93	
	thallerh****#00003 torresc*****00002	3 2	3/81/93 Unknown	
	torrest*****#ØØØ8 turnerc*****#ØØØ81	8	Unknown Unknown 4/15/93	
	vuongp*******ØØØØ7 vuongtc*****ØØØØ7 vuongtv*****ØØØØ7	, 7 7	Unknown 5/18/93	
	watsona*****ØØØØ2 words******ØØØØ8	2 8	3/11/93 4/28/93	
	wur************************************	7 7	Unknown 4/28/93	

LAB for listing options



LAB to switch to TABULAR display mode

Curriculum/Group: Øbslang/phibsgaa	5/17/93	4.34 PM

#### Course Progress Summary

Course	Nu	mber of Students	(%)	Average
	Assigned	Started	Mastered	Score
1	64	52 (81)	9 ( 14)	31
2	64	9 (14)	4 ( 6)	73
3	64	4 (6)	2 ( 3)	82
4	64	1 (1)	Ø ( Ø)	44
5	64	Ø (Ø)	Ø ( Ø)	Ø

Enter a course number for more information >>

LAB to switch to GRAPHIC display mode



Record usage for group phigread as of \$5/19/93: GED READING

		Last_On	Days	Hours	Sess.	CPU
arroyoc******00008	5	Ø3/21/93 18:18	1	8.1	1	1.9
ben*********ØØØØ9	\$	11/13/92 11:16	2	1.1	2	8.4
bibbsh******ØØØØ6	5	Ø4/27/93 17:19	1	Ø.5	1	1.7
burnettv*****03888	5	Ø3/11/93 18:27	1	1,2	1	Ø.3
burrisc******88884	5	84/23/93 28:48	4	1.5	6	Ø.7
byrdm******90000	8	Ø3/12/93 17:41	1	Ø.8	1	Ø.7
chris*********	5	Ø1/Ø8/93 17:32	3	Ø.Ø	3	2.8
colon1******#88882	\$	84/22/93 19:14	6	10.4		1.1
dangt*******00007	\$	Ø2/25/93 19:Ø4	1	Ø. Ø	1	18.4
davish******00004	8	Ø3/23/93 1Ø:27	2	0.1	2	3.4
dumpsonj*****00002	\$	Ø3/18/93 18:Ø7	1	8.5	2	Ø.8
enochy*******ØØØØ8	5	Ø3/16/93 19:37	5	2.3	5	1.6
fieldsc******00001	5	Ø3/24/93 15:4Ø	1	2.2	1	1.1
freemenc*****00008	5	Ø3/Ø4/93 2Ø:Ø1	1	Ø. 1	1	1.8
grayd*******00002	\$	Ø2/12/93 16:52	2	Ø.8	4	Ø.5
gwup********ØØØØ7	5	Ø5/Ø6/93 13:55	1	Ø. 2	1	1.4
hoangi *** *** \$88887	5	Ø4/14/93 19:48	1	Ø.1	1	3.5
holderp******00006	5	Ø4/27/93 2Ø:3Ø	7	4.8	9	Ø.8
iohnsone****#ØØØØ2	5	Ø3/25/93 17:2Ø	2	Ø.2	3	1.4
johnsonm****#00004	5	Ø3/31/93 19:1Ø	1	Ø.6	1	1.2
lebrong*****#00005	5	Ø4/21/93 13:55	5	8.4		2.0
legares*****00008	Ŋ	Ø4/Ø1/93 15:87	2 3	Ø. Ø		3.5
lequyen*****00009	Ŋ	Ø2/Ø9/93 19:15	3	Ø.1	4	1.2
mcintyrec***#ØØØØ2	S	Ø4/15/93 17:Ø8	5	3.5		1.2
mcsorleyi****00003	5	84/25/93 16:42	3	Ø.1	3	2.4
metzcher1****00002	5	Ø5/15/93 11:51	27	24.1	47	1.9
miriam******ØØØØ9	5	Ø1/18/93 15:Ø7	2	Ø.Ø	2	3.4
nesmithc****#00004	S	Ø5/Ø3/93 11:5Ø	2	Ø.Ø	2	3.4
parkere*****#ØØØØ3	S	Ø5/Ø6/93 21:22	1	Ø.Ø	1	5.5
pastorizad***ØØØØ5	S	Ø4/11/93 18:33	1	Ø.Ø	1	9.6
rosaoØØØØ9	S	11/24/92 16:82	1	0.0		2.7
santom******ØØØØ6	S	Ø5/13/93 2Ø:14	3	2.2		Ø.8
testing*****00009	S	Ø1/18/93 Ø9:4Ø	1	Ø.Ø		6.9
torresc*****#ØØØØ2	S	84/28/93 22:25	2	1.6		2.4
torress*****#00005	5	Ø3/31/93 11:37	1	Ø.8	11	5.5
turnerc*****#00001	S	82/24/93 23:36	1	1.2	1	2.2
vuongp******00007	5		1	Ø.2	2	3.9
vuongtc******ØØØØ7	S	83/29/93 15:12	11_	Ø.8		7.2
vuongtv*****#00007	S	Ø3/26/93 17:53	11_	0.8		7.3
watsona*****#ØØØØ2	5	Ø3/18/93 18:35	2	Ø.5		1.0
williamsk****00002	5	Ø3/18/93 14:Ø8		0.8		84.4
words********00008	5	83/31/93 19:47	11_	Ø.1		1.8
YUY***********	5	Ø5/Ø7/93 19:35	7	13.8	13	Ø.5
	1	· —	1	1	•	1 1

Usage averages for group phigreaa as of #5/19/93:

	#	Days	Hours	Sessions	CPU
Students	43	3	1.7	4	4.6
Multiples					
Authors					
Instructors					



Record usage for group phigmaaa as of #5/19/93: GED MATh

	Last On	Days	Hours	Sess.	CPU
amiln*******00002 5	Ø5/Ø6/93 19:56	18	22.8	28_	Ø.5
bielawskic***ØØØØ8 s	Ø5/15/93 13:21	1	1.0	1	1.6
blakeneym****ØØØØ4 s	Ø5/13/93 1Ø: 46	1	Ø.Ø	1	4.1
burroush****#88886 s		1	Ø. 1	1	3.4
chrish*******00000 s	81/18/93 18:39	1 1	Ø.Ø	3	3.6
chris******#ØØØØ S	Ø1/29/93 23:Ø8	3	Ø.1	4	1.1
cockrellt****00006 5	Ø3/Ø3/93 13:17	1	Ø. 2	1	1.8
colon1******#ØØØØ2 S	Ø4/13/93 13:39	14	21.7	21	0.7
dave*****phi88888 s	18/25/92 18:14	1 1	0.0	1	Ø.3
dave*******ØØØØØ S	Ø1/15/93 15:45	1 1	8.8	1	11.5
dave runtephi00000 s	18/22/92 17:13	1 1	Ø.Ø	1	2.4
davish*****#ØØØ4 S	Ø3/Ø9/93 1Ø:5Ø	<del>                                     </del>	Ø.3		1.3
dumpson   **** # 8 8 8 8 8 2   S	Ø4/Ø1/93 17:16	9	4.6		Ø.5
ferris******ØØØØ9 s	Ø3/Ø9/93 11:29	t i	Ø.1		3.4
fieldsc******00001 s	Ø4/Ø3/93 21:29	1 1	Ø.7	1	Ø.9
fisher1*****00004 s	£3/18/93 1Ø:5Ø	ī	Ø. 2	1	1.3
grayd*******00002 5	Ø5/Ø5/93 13:22	13	23.7		1.1
gwup********ØØØØ? s	Ø5/Ø6/93 1Ø:59	1 1	8.8		85.6
hoangi*******ØØØØ7 5	1 /15/93 21:82	1	Ø.1	1	2.9
hoang1******ØØØ7 5	1 738/93 17:18	1	Ø.2		2.3
holderp*****ØØØØ6 s	Ø4/13/93 13:12	1	Ø.1		3.0
johnsone****#ØØØØ2 s	Ø4/15/93 Ø5:1Ø	2	Ø.7	3_	8.4
john*******######## 5	Ø2/16/93 Ø9:31	1	Ø.Ø	1	26.1
kucouskia***#ØØØØ2 s	83/84/93 18:21	2	1,1		1.4
legares*****#00008 s	Ø5/18/93 11:47	2	Ø.2	2	3.9
lequyenggggg 5	Ø1/Ø5/93 18:36	1	Ø.2	11	Ø.6
lequyen*****#88889 s	1000	3	Ø.3	3_	Ø.5
mointyrec****88882 5		18	16.5	3.0	1.4
metzcherl****ØØØØ2  s	Ø5/15/93 13:48	34	22.4		2.2
millern*****#ØØØØ1 s	Ø4/26/93 14:47	3	Ø.7	4	1.9
miriam******ØØØØ9 5		1	0.0	11	2.4
moralesm****#00005 s	04/13/93 14:27	1	Ø.1	1	3.5
morrisc******00001 s		1	Ø . 1	1	1.9
neale********00001 s		1	1.6		1.0
nesmithc*****00004   5	Ø3/Ø7/93 22:26	1	2.0		Ø.2
nguyenth****#ØØØØ7 s		1	Ø.2	111	1.3
nguyent * * * * * # Ø Ø Ø Ø 7 S	Ø4/1Ø/93 12:Ø3	1	Ø.1	1	2.9
Derezw******00004   5	Ø5/Ø5/93 Ø8:28	1	Ø.4		2.2
pete*********ØØØØ9 5	82/18/93 21:84	2	Ø.1	2	1.3
rodrigueza***00005 s	84/27/93 18:43	1	Ø.1		6.2
smithm******ØØØØ4 s	84/28/93 18:35	1	Ø.2		1.7
Son1************		1	Ø.Ø		9.1
Sonx************************************		1	Ø . Ø		3.1
swisher; *****00002  s		18	10.1		3.1
terry*******ØØØØ9 s		6	2.7	1.0	8.4
torresc*****#ØØØØ2   s		22	50.2	42	1.4
Tturnerc*****#00001   s		7	3.8	12	1.5
watsona*****#00002   5		9	2.7		1.4
■ williamsk***#ØØØØ2  s		10	3.8	18	$\frac{1}{1}$
words*********	84/27/93 28:58	<u> </u>	Ø.2	11_	1.5

Usage averages for group phigmaaa as of Ø5/19/93:

. – –					
	*	Days	Hours	Sessions	CPU
Students	5ø	5	3.9	7	4.4

Multiples

Authors

Instructors



Record usage for group phigwraa as of \$5/19/93: GED WRITING

	Last On	Days	Hours	Sess.	CPU
amiln*******00002	s Ø3/23/93 17:19	1_1_	Ø.2	1	2,8
ben*********90009	5 11/17/92 14:25	3	3,4	3	Ø.3
bielawskic***80008	\$ 84/11/93 18:82	I_ 1_	0.0	1	6.2
burnettv*****00008	S Ø5/18/93 21:29	4	5.6	6	Ø.9
burrisc*****88884	<b>5</b> Ø3/25/93 11:26	2	Ø.8	2	1.0
chris*********	s 01/02/93 22:22	1	Ø.Ø	1	9.4
chris hopks	5				
cintron1****#88885	s Ø4/Ø2/93 17:26	11_	Ø.2	2	2.5 3.3
cooneym*****00008	s Ø4/Ø8/93 23:4Ø	11_	1.5	3	3.3
dave*****phi88888	s 10/25/92 18:21-	11_	Ø.Ø	1	1.1
dumpson; * * * * * 88882	s Ø5/13/93 16:21	5	5.1	6	Ø.6
enochv*******00008	s Ø4/26/93 17:22	2	1.5	2	2.8
grayd*******00002	5 82/11/93 20:05	11	Ø.Ø	1	49.5
holderp*****#00006	s   Ø5/16/93 19:29	2	1.8	2	1.5
john**********	s Ø4/19/93 11:59	3	Ø.4	4	3.6
lebrong*****0005	s 05/11/93 14:06	11_	Ø.7	111	1.9
lequyen*****#00009	s 11/23/92 13:28	11_	Ø.Ø	1	Ø.8
ludo********00009	s Ø2/12/93 21:26	11_	ø.ø	1	1.8
mcintyrec***#ØØØØ2	s Ø5/Ø6/93 18:Ø2	5	5.1	5	1.8
mcsorley; *** * # # # # # # # # # # # # # # # #	s Ø3/13/93 19:55	11_	Ø.Ø	1	5.8
metzcherl****ØØØØ2	s 85/14/93 21:57	5	3.9	1.0	3.0
miriam******00009	s 81/15/93 15:54	1 1	Ø.Ø	1	7.4
000neym*****#ØØØØ8	s 82/27/93 23:13	1	Ø.5	11	3.2
pastorizad***80005	s 84/19/93 18:18	2	Ø. Ø	2	7.5
santom******00006	s Ø5/Ø4/93 2Ø:57	11	1.0	2	2.0
terry******#ØØØØ9	s 01/07/93 21:19	1	Ø,Ø	1	5.2
torresc*****#ØØØØ2	s Ø2/18/93 19:42	2	1.3	2	Ø.8
vuongp******ØØØØ?	s Ø4/19/93 19:28	4	2.8	5	1.5
watsona*****#ØØØØ2	s Ø5/Ø5/93 18:59	2	1.4	2	1.5
williamsk****ØØØØ2	s Ø3/1Ø/93 19:19	1	Ø.1	1	2.1
words**********	s Ø5/12/93 Ø9:59	8	3.4	9	Ø.9
WUT************	s Ø5/14/93 18:31	1	3.4	1	Ø.9
VUV**********ØØØØ?	s Ø4/28/93 2Ø:37	1	8.1	1	2.9
1	1	<del> </del>			

Usage averages for group phigwraa as of 05/19/93:

Usage averages	for group	o phigwr	aa as o:	Ø3/19/93:	
	#	Days	Hours	Sessions	CPU
Students	32	2	1.4	3	4.2
Multiples					
Authors					
Instructors					



Record usage for group phigscaa as of \$5/19/93: 6ED SCIENCE

Record neares in e.				_	
	Last On	Days_	Hours	Sess.	CPU
amiln*******#00002 5	Ø3/Ø4/93 17:57	11	Ø.1	11	1.2
amiin***********************************	Ø3/21/93 22:36	1	Ø.2	1	1.2
	84/28/93 13:23	4	Ø.2	5_	Ø.9
	84/82/93 16:51	11	Ø.1	1	2.6
CINCIONI + + + + + + <del>0 0 0 0 4 4 1 1 2 -</del>	Ø3/1Ø/93 18:11	1	Ø.5		1.2
CO O	Ø4/Ø9/93 ØØ:Ø3	1	Ø.Ø	1	5.8
	82/25/93 16:25	1	Ø, 2	1	1.7
	18/25/92 18:22	1	Ø,Ø	1	1.6
UAVE~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	Ø2/11/93 21:35	1	Ø.3	1	1.8
COMPATT TO TOO SE	Ø2/18/93 17:25	1	Ø.1	1_	Ø.6
GOIDSOIT TO TO THE STATE OF THE	Ø4/Ø5/93 2Ø;28	2	2.2	2	Ø.7
	Ø3/1Ø/93 23:55	1	2.4	1_	Ø.5
E avanta i i i i i i i i i i i i i i i i i i i	Ø4/16/93 2Ø:Ø4	2	Ø.1	2	3.0
TOBLE I THAT THE TOBERT AND THE	12/17/92 17:12	1	Ø.5	111	0.4
	Ø3/18/93 18:11	1	Ø.1	1	2.6
I Offisolievin vocase in its	7 1 1 2 10 0 0 1 1 0 0	1	Ø.Ø	11	3.2
	Ø3/23/93 2Ø:59	2	1.2	2	1.2
1 O	100	1	Ø.1	1	2.6
THEOLOGICATION CONTRACTOR	10 17 2 27 10 0 1 C 1 A 2	1	0.7	1_	Ø.3
T TECHTOE I TO TO TO THE TOTAL THE TOTAL TO THE TOTAL THE TOTAL TO THE TOTAL THE TOTAL TO THE TOTAL THE TOTAL TO THE TOTAL THE TOTAL TO THE TOTAL TOTAL TO THE TO		2	Ø.9	4	1.7
ludo*******##############################	7 400 400	3	1.3	3	Ø.7
mcintyrec****#######		4	Ø. 1		3.4
metzcherl****ØØØØ2 s	100 100 10 CC	1	8.8	1	5.2
morgans******00001 s		1 2	0.6		1.7
nat***********	WE 18 100 101 0E	+ - 7	Ø.1	11	3.9
neale***********************************	1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	1 2	0.1	2	1.1
nguyenth*****ØØØØ7   5	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1	Ø.2		1,1
nguyent************************************	1 2 2 4 40 0 4 5 4 0 0	+ +	ø.ø		2.1
robersong****###### s	1 2 4 6 2 400 404 54	<del>                                     </del>	Ø. 1		5.4
rodrigueza***88885 s	100 100	1 1	Ø. 1		Ø.6
sam************		1 - 1	Ø. 1		2.8
santom******#00006 s	100 100 100	+ +	1.3		Ø.7
teagues******#88881 s		+ +	<u> </u>		1.4
Vuonep******0000/_19	400 400	+ +	$\tilde{g}.\tilde{g}$		1.6
watsona*****#ØØØØ2 s		+ +	Ø. 4		2.8
williamsk****00002   9	1 2 2 4 2 2 4 2 4 2 4 2 4	1 2	Ø. E		0.8
words**********			Ø. 7		0.7
YUY*************	<u> </u>		<del>                                     </del>	<del>                                     </del>	<del>                                      </del>

## Usage averages for group phigscaa as of Ø5/19/93:

Jsage averages	for grou	b burgac	A.G. 43 VI		
	#	Days	Hours	Sessions	CPU
Students	37	1	Ø.4	2	1.9
Multiples					
Authors					
Instructors					



## Record usage for group phigsoaa as of \$5/19/93: 6ED Soc. Stud.

		Last On	Days	Hours	Sess.	CPU
	5	84/15/93 17:31	2	Ø, 2	2	Ø.5
	<u>s</u>	84/29/93 14:35	2	1.3	2	Ø.6
	5	Ø2/27/93 22:18	1	1.1	2	Ø.8
	5	Ø3/21/93 19:39	1	Ø.8	1	Ø.5
	\$	Ø3/13/93 1Ø:Ø1	1	0.0	1	19.7
	5	Ø1/29/93 23:Ø5	2	0.0	2	2.8
	\$	Ø4/15/93 18:Ø3	1	4.2	6	1.3
cooneym*****#ØØØØ8	5	Ø4/25/93 15:85	1	Ø.Ø	1	4.8
	IJ	18/25/92 18:24	1	0.0	1	2.1
dumpson   ****#00002	9	Ø5/13/93 16:23	2	Ø.1	2	3.6
	B	Ø2/23/93 22:53	1	Ø.2	1	Ø.5
fieldsc*****#00001	ß	Ø5/Ø3/93 14:57	2	1.5	2	1.3
gomezr*****#ØØØØ5	5	Ø4/2Ø/93 12:31	3	Ø.3	3	4.3
gonzalezm***#ØØØØ5	ij	Ø5/17/93 2Ø:45	3	Ø.1	3	3.8
grayd*******ØØØØ2	Ŋ	Ø3/14/93 15:12	5	4.3	6	27.7
hoangi*******00007	ŧ٩	Ø4/16/93 21:19	1	Ø.Ø	1	22.8
johnsone****#ØØØØ2	5	Ø4/29/93 17:24	4	2.8	4	1.0
johnsonm*****ØØØØ4	ŧ	Ø4/12/93 Ø2:Ø7	1	1.1	1	1.1
legares*****#ØØØØ8	ŭ	Ø4/Ø1/93 16:33	1	Ø.Ø	1	14.0
1udo*******ØØØØ9	ú	Ø4/Ø7/93 1Ø:54	2	Ø.8	3	1.8
mcintyrec****ØØØØ2	٩٩	Ø2/17/93 13:4Ø	2	Ø.3	2	1.2
mcsorleyi****ØØØØ3	ğ	Ø3/26/93 2Ø:28	1	Ø.Ø	1	9.9
metzcherl****ØØØØ2	Ø	Ø5/Ø8/93 17:18	9	4.7	12	2.7
nat***********	Ų.	Ø3/Ø4/93 19:44	1	0.0	1	6.8
	J.	Ø4/2Ø/93 Ø9:37	1	Ø.Ø	1	8.3
perezw*******00004	Ů	Ø3/11/93 14:17	1	Ø.1		3.4
	5	Ø2/Ø8/93 16:26	1	Ø.1	1	2.1
smithm******00004	5	Ø4/21/93 Ø9:32	_ 2	Ø.3	2	1.5
	ĵ	Ø5/Ø5/93 13:21	1	Ø.5	1	1.6
swisherj*****00002	ŭ	Ø4/18/93 18:22	1	Ø. 1	1	8.3
	S	Ø3/2Ø/93 14:35	2	Ø.4	2	2.1
	ů,	Ø5/18/93 17:53	1	Ø.Ø	1	18.1
	5	Ø2/17/93 23:Ø6	1	Ø.2	1	1.4
	S	Ø3/18/93 19:Ø9	1	0.1		2.1
	5	Ø3/18/93 14:47	1	Ø.1	1	2.8
	S	Ø3/11/93 11:42	1	2.0	1	Ø.5
				,		

## Usage averages for group phigsoaa as of Ø5/19/93:

Usage averages for group phigsoal as of BJ/19796.								
	#	Days	Hours	Sessions	CPU			
Students	36	2	Ø.7	2	4.4			
Multiples								
Authors								
Instructors								

Record usage for group phibsmaa as of Ø5/19/93:

B.S. MATH

			Last On	Days	Hours	Sess.	CPU
	amiln************	Π	Ø5/Ø6/93 19:25	13	1,9	2.8	Ø.4
ł	anita**********	П	Ø1/28/93 2Ø:44	2	2.1	2	ØØ
	ben*************	. 1	11/21/92 16:07	4	1.8	5	Ø.3
	blakeneym****88884 s	. 1	Ø5/13/93 11:Ø8	9	3.4		1.4
4	bob elmore***##################################	_	84/29/93 14:22	2	ø.ø		2.1
ŀ	burnettv*****#88888   s	-	84/23/93 21:45	3	2.4		3.2
_	cainep*******##############################	-	Ø2/25/93 18:43	<del></del>	æ.ø		9.3
	chrish******########	-	Ø1/18/93 18:39	1	ø.ø		3.9
	chris***********	_	Ø3/24/93 22:55	5	ø.3		1.9
ŀ	cockrellt****88886 s	-	Ø3/Ø3/93 12:5Ø	<del>- 1</del>	Ø. 1		2.8
}	colon1******#ØØØØ2 S	$\rightarrow$	Ø3/3Ø/93 18:38	1Ø	2.7	26	1.6
	corneliusa***00006 5	-	Ø2/2Ø/93 18:48	2	Ø. 4		1 1
		-	Ø1/15/93 15:44		Ø. Ø		5.2
٦	dave*************	+	Ø3/Ø5/93 14:51	2	Ø.2	2	1.5
- 1		-	Ø4/Ø1/93 17:23	3		3	8.7
	dumpsonj **** # # # # # # # # # # # # # # # # #	-	Ø3/Ø9/93 11:25	1	1.1	<del></del>	4.1
	ferris*******00009 s	_			Ø.Ø	3	<del>- 7. 3</del>
	fieldsc******00001 s	_	Ø3/31/93 22:ØØ	3	2.4		2:5
١	fisher! ** * * * * Ø Ø Ø Ø 4   S	-	Ø5/18/93 11:15	5	1.0		3,8
اد		늬	Ø5/11/93 11:02	2	8.2		2.5
		1	81/11/93 12:49	<u> </u>	8.8		8.7
		닉	Ø5/Ø4/93 18:34	3	<u>Ø.2</u>	3	1.4
١	jennyfer****#00009 5	-	12/84/92 11:38	1	8.1	9	
_		니	Ø3/Ø4/93 18:25	6	1.9		<u>  Ø.8</u>
	0.11201111	딕	Ø4/12/93 ØØ:57	3	1.7	4	+ + - (1
		ᅬ	Ø5/19/93 1Ø:12	1.0	1.7	14	1 - 2
7	kucouskia****80002   5	<del>- 1</del>	<u>Ø2/11/93_19:31</u>	1	1.0	1	1 2
Į	leguyen88889 s	_	12/29/92 19:12	1	Ø.1	1	Ø.6
	lequyen*****00009	_	12/29/92 18:46	3	Ø.5	3	8.4
		ᅬ	Ø2/23/93 18:Ø5	1	Ø,2		1.4
_		Ц	12/14/92 14:13	1	g.3		Ø.8
ı	mcintyrec***#ØØØØ2	-	Ø3/25/93 13:15	6_	1.5		Ø.5
	mcsorleyj****ØØØØ3 s	-	Ø4/25/93 16:32	2	Ø.1		4.0
		<u> </u>	Ø5/15/93 13:ØØ	16	15.8		2.5
	millern*****00001   5	_	Ø2/21/93 12:Ø3	1	1.0		<u>g. 2</u>
Į		ᅬ	Ø3/16/93 15:Ø7	4	Ø.8		Ø.4
	morgans*****00001   5	_	Ø3/Ø3/93 12:58	1	8.8		8.1
	710, C	Ц	Ø5/14/93 Ø9:21	12	Ø.9		2.8
		54	Ø5/13/93 13:19	6_	1.7	7	1.2
Į		ᅬ	<u>Ø2/27/93 22:38</u>	1	Ø. 1		3.1
		ᅬ	Ø5/12/93 15:29	9	1.9		1 1 - 2
	perkins1*****00004 s	-	Ø3/Ø9/93 11:42	3	1.2		1.2
		듸	Ø2/Ø8/93 16:28	1	8.8		5.2
		ᅬ	Ø3/Ø1/93 15:4Ø	2	Ø.2		2.2
		ᅬ	Ø3/29/93 16:41	2	9.7	<del> </del>	g . 9
	sanderss*****00008 s	_	Ø3/18/93 18:3Ø	1	Ø.1	11_	2.1
		5_	Ø3/28/93 2Ø:17	8	2.8	9	1.6
	terry*******ØØØØ9 ==		Ø1/25/93 18:Ø4	2	Ø.2		8.4
	testing00009	5_	Ø1/18/93 Ø9:5Ø	1	Ø.Ø		5.9
		L		1	8.1	<u> </u>	1.0
	torresc*****################################	L	Ø2/25/93 2Ø:36	7	6.8	7	1.6
		Ł	Ø2/28/93 2Ø:3Ø	8	6.8 5.8	24	<u> </u>
1		Ц		2	3.9	1 2	2.1
	watsona*****#BBBB2	Ц	Ø5/13/93 18:Ø8	6	3.9	7	1 2 2
•	willamsk****#################################	Ц	84/82/93 28:48	<del>  7</del>	2.6	27	1 2 1

Usage averages for group phibsmaa as of Ø5/19/93:

_						
	*	Days	Hours	Sessions	CPU	
Students	54	4	1.4	6	2.1	

Multiples

Authors

Instructors

Record usage for group phibsgaa as of \$5/19/93: B.S. Grammar

	_					
		Last On	Days	Hours	Sess.	CPU
amiln**********	5	Ø5/Ø6/93 21:32	13	10,3	2.0	1.7
ben***********	5	Ø2/15/93 15:48	2	8,9	2	2.6
bielawskic***ØØØØ	5		1Ø	17.1	19	2.6
blakeneym****00004	5	Ø4/25/93 Ø8:51	1	Ø.6	1	Ø.6
bob elmore***00000	5	Ø4/Ø8/93 16:18	1	2.9	2	Ø.2
brownr*******00001	5	Ø2/16/93 18:25	1	Ø.4	1	Ø,5
burnettv*****00008	5	Ø5/18/93 2Ø:49	17	22.2	35	1.6
burrisc*****#00004	5	Ø4/23/93 2Ø:1Ø	1	Ø.1	1	4.0
byrdm******#ØØØØ8	5	Ø4/Ø3/93 1Ø:29	4	3.Ø	4	2.3
chris****phi88888	5	18/22/92 14:29	1	Ø.Ø	11	Ø.8
chris*******00000	5	Ø1/29/93 23:Ø4	2	Ø.Ø	2	2.2
cooneym*****#88888	5	Ø4/Ø8/93 19:33	5	4.2	11	4.2
corneliusa***#######	5	Ø2/17/93 12:41	1	Ø.7	1	Ø.9
dave*****phi00000	5	10/25/92 18:08	1	Ø,Ø	1	Ø.5
dave runtephi88888	\$	18/22/92 17:14	1	Ø,Ø	1	3.4
donna*******ØØØØ9	5	Ø4/19/93 19:3Ø	13	2.8	18	3.2
dumpson   ***** # # # # # # # # # # # # # # # #	5	Ø5/13/93 16:Ø3	6	4.4	6	1.1
enochv******ØØØØ8	5	Ø4/29/93 22:52	1	Ø.2	11_	6.2
fieldsc*****#00001	1	Ø4/21/93 16:Ø7	5	7.1	5	3.3
fred***********	5	<u>Ø1/20/93 18:00</u>	2	Ø.3	2	1.4
freemanc****#ØØØØ8	5	£4/27/93 Ø1:Ø2	2	1.9		6.0
freemenc****#ØØØØ8	5	Ø3/29/93 2Ø:Ø3	3	Ø.3	3	1.7
grayd****** fam	5	Ø5/1Ø/93 22:32	2	1.0	2	4.5
grayd*******00002	5	Ø5/13/93 18:16	14	17.5	16	2.4
EWUD**********	5	Ø5/Ø6/93 1Ø:36	2	3.1	2	2.3
hoangi*********	5	Ø5/13/93 19:31	2	2.1	4	1.6
hoang 1 * * * * * * # # # # # # # # # # # # #	5	Ø5/Ø6/93 19:32	2	2.9	1.0	2.9
holderp*****#ØØØØ6	15	Ø4/28/93 16:27	1	Ø.6	1	4.7
johnsone****#ØØØØ2	5	Ø4/15/93 17:15	3	Ø.2	4	2.8
johnsonm****#ØØØØ4	5	Ø4/12/93 ØØ:54	4	3.1	5	1.4
john************	8	Ø4/Ø5/93 Ø8:47	5	1.2	7	2.4
kucouskia****ØØØØ2	15	Ø3/Ø4/93 19:87	i	Ø.8	1	3.2
legares******00008	5	Ø5/19/93 ØØ:32	25	25.3	39	2.5
lequyen*****#ØØØØ9	15	Ø4/Ø7/93 15:42		8.7	5	1.3
1udo*************	5	Ø2/12/93 21:51	1	ø.ø		2.2
mcintyrec***#ØØØØ2	5	Ø5/Ø6/93 17:1Ø	4	2.2	7	2.0
mcsorleyi ****ØØØØ3	5	Ø5/18/93 17:56	25	37.3	52	1.9
metzcher1****ØØØØ2	5	Ø5/Ø2/93 18:11	9	4.4		2.8
millern******00001	5	Ø4/Ø6/93 2Ø:3Ø	1	Ø.2	2	4.8
miriam******ØØØØ9	5	Ø1/18/93 Ø9:34	i	Ø. Ø		8.4
morgans*****#00001	5	Ø3/Ø2/93 11:Ø4	i	Ø.3	1	2.5
nat***********	5	Ø3/19/93 Ø5:5Ø	1	Ø.2	1	3.9
neale********00001	5	Ø5/Ø5/93 17:13	1	Ø. 1	1	1.8
nguyenth****#ØØØØ?	3	Ø3/3Ø/93 18:Ø9	2	Ø.3	3	2.7
nguvent*****#ØØØØ7	15		1	Ø. 1		3.6
000neym*****#888888	5	Ø2/27/93 Ø3:2Ø	4	2.4	_	3.8
parkere******00003	5		1	Ø. Ø		6.1
perezw*****#00004		Ø3/16/93 15:45	1	Ø. 1		1.0
sammonsm*****00006	15		1	Ø. 1	i	1.8
5am***********	5		3	3.6		3.0
sanderss*****#######	5	Ø5/17/93 2Ø:57	13_	12.5	21	3.2
santom******#88886	13	Ø5/10/93 18:44	<del>  • ĭ</del>	12.5	1	6.3
son!*******##############################	15		- 6	7.3	8	3.0
sonx*******#######		Ø3/12/93 14:23	<del>                                     </del>	0.1		3,5
swisher   ****######2	14	Ø5/13/93 18:33	15	6.7	32	3.2
terry*******#######	15	Ø3/82/93 28:17	<del>। र्</del> ड	<b>Ř</b> .3	- 3	4.4
thallerh*********	15	Ø3/Ø1/93 2Ø:34	<del>                                     </del>	8.4		2,2
torresc******#88882	15	#3/11/93 19:1#	1 1	9.9	1	4,1
torrest*****#######	15		† †	Ø. Ø Ø. 3	2	1.8
turnero*****#88881	15	Ø3/81/93 11:22	3	8.3	3	2.5
Vuongp*******88887	13	Ø4/15/93 19:38	1 3	1.4	2	1.3
vuoneto******88887	15	#3/29/93 15:32	1 1	8.3	1	1.4
vuonetv******88887	15		1 <u> </u>	5.8	1 14	3.5
watsona*****#88882	15		<del>1 3</del>	7.3	3	2.4
words*******#88888	4	84/28/93 88:57	1 1 2	2,3 7,5 8,2	28	2.7
WUT#########BBBB7	15		1	8.2	3	3.2
VUV********BBBB7	15		1 4	8.6		2,3
**************************************	╅		1 -	<del>i                                    </del>	i	T
	†		<del> </del>		<del></del>	$\overline{}$
	<del> </del>	<del></del>	<del>                                     </del>	<del>                                     </del>	<del>                                     </del>	<b>†</b>
	$t^{-}$		<del>†</del>	<del>                                     </del>	<del>1                                    </del>	T-
CDIC.	1	<del></del>	<del>i                                    </del>	1	ī —	T
EKIC — — —	+	<del></del>	<del>                                     </del>	†		<del>                                     </del>
tull Tax Percentage by EDIC		<del></del>	1	<del></del>	<del></del>	+

## Usage averages for group phibsgaa as of Ø5/19/93:

	_						
	*	Days	Hours	Sessions	CPU		
Students	67	4	3.6	7	2.8		
Multiples							
Authors							
Instructors							

These statistics include only those records which have signed on at least once.

BACK to return

Record usage for group phibsraa as of Ø5/19/93:

B.S. Reading

	_	Last On	Days	Hours	Sess.	_CF'J_
anita********	\$	84/19/93 22:38	3	Ø, 9	3	2.9
arroyoc*****#ØØØØ8	s	Ø3/21/93 15:2Ø	1	Ø,3	1	1.9
ben*********ØØØØ9	5	12/03/92 13:05	3	1.2	3	Ø.2
bibbsh******ØØØØ6	5	84/28/93 13:23	1	Ø, 9	2	1.8
buit**********	13	Ø3/26/93 14:32	2	Ø.6	3	1.2
burnettv*****ØØØØ8	5	Ø3/22/93 21:46	7	5.1	13	1.3
burrisc******00004	5	84/23/93 28:44	3	3.2	8	Ø.7
burroush*****00006	5	Ø2/23/93 12:56	2	ø. 3	2	Ø.6
chris*********	5	Ø4/2Ø/93 13:23	4	Ø.2	5	1.1
collinst****#ØØØØ3	5	Ø4/Ø5/93 17:Ø3	1	Ø 1	1	3.9
davish******ØØØØ4	8	Ø3/25/93 1Ø:18	4	1.8	7	1.6
enochv******#ØØØØ8	15	Ø4/27/93 19:Ø4	8	7.9	12	2.2
fisher1******00004	ᇹ	Ø4/2Ø/93 11:39	1	Ø.1	1	4.8
fred********ØØØØ9	5	Ø3/17/93 15:Ø4	1	Ø.3	i	3.3
freemanc****#ØØØØ8	15	Ø4/27/93 ØØ: 11	1	Ø. 1	i	4.5
grayd******#ØØØØ2	ᇹ	Ø2/11/93 28:Ø7	1	ø.ø	Î	38.5
hoangi*********	3	Ø4/19/93 15:3Ø	3	Ø.1	5	3.3
noangi+++++aaaaai	ᇹ	12/17/92 22:22	<del></del>	Ø.5	1	Ø.7
jennyfer****#ØØØØ9	+	Ø2/14/93 18:56	1	Ø. 1	1	1.4
ohnsone****#88882	돌	Ø3/31/93 23:45	1	2.1	2	1 0
johnsonm*****################################	돌		5	1.6		1.9
john*************	<u> 5</u>		1	Ø. 2	1	2.3
lebrong *** * * * # # # # # # # # # # # # # #	5		1	8.8		28.5
legares*****#00008	5		2	Ø.?	4	8.7
lequyen******00009	5	12/29/92 18:40		8.8		5.6
ludo**********	5	11/25/92 15:51	1		<del></del>	5.3
mcintyrec****88882	5	Ø4/27/93 19:Ø8	1	9.8		
mcsorley; ****80003	5		44	97.5		1.2
metzcher!****ØØØØ2	15	<u>Ø4/Ø8/93</u> Ø9:24	4	2.1	4	8.7
miriam******00009	5	12/04/92 11:15	4_	Ø.7		
nesmithc*****00004	<u> 5</u>	Ø5/11/93 14:Ø8		2.4		1 2
nguyenth*****ØØØØ7	5	Ø3/26/93 15:26	1	Ø. 1		2.6
pedro********00009	5	11/23/92 14:58	1	Ø. 1		Ø.5 2.3
perezw*******00004	15	03/11/93 13:10	1	8.1		0.8
perkinsl*****00004	5		4	1.6		
rodrigueza***88885	ļs	Ø4/27/93 18:37	11	Ø. 1	11_	6.6
rosa************	5		1	0.4		0.3
sam*********ØØØØ9	5		3_	1.7		1.0
santom******ØØØØ6	15		2	2.3		2.4
stevensono***00003	15		1 1	8.1		2.5
swisher; *****00002	5		11_	Ø. 1		1.1
terry********00009	5	<del>1                                    </del>	11_	2.9		Ø.8
thallerh*****00003	15		2	Ø.6		1.0
theressa*****00009	5		2	Ø. 1		3.9
williamsk****00002	5		11	Ø.Ø		25.5
words********00008	5		12	9.5		1.9
YUY*********ØØØ7	5	Ø2/25/93 21:ØØ	11_	Ø.8	2	1.6
		•				

Usage averages for group phibsraa as of Ø5/19/93:

	*	Days	Hours	Sessions	CPU
Students	46	3	3.3	5	3.6
Multiples					

Instructors

Authors



	Or a de and inhie	resa	5.	/19/93	1Ø:18 A.
Curriculum/Group:	Zgearead/priss	. 44.6.		Current	
Student	Class	VMS	Course	Module	Status
Student	1988 8	1		_	
arroyoc******		ī	1	C	
<b>医二头虫虫 医苯基苯基甲甲甲基乙</b>	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	ī			
bibbsh******		1			
burnettv*****	,	Ī			
burrisc*****	- I W -	ī			
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A	• סעמש	1	1	B	
	ØØØ2 <u>4</u>	1	•		
		1	1	G	
holderp*****		1	•		
johnsone*****	ggg2 2	1			
johnsonm*****	8882 8884 8885 8888 8889 9888 8888 8888 8888	1			
lebrong*****	ัติติตร์ 5	1			
Lebrong	ัติติติติ 8	1			
legares******	ซื้อติดี 9	1			
legares++++*	ัตตัดว 2	. 1	1	Н	
mointyreo****	หัสสัสวิ 3	1	_	_	
	χααα2 2	1	2	G	
	7 A A A A A A A A A A A A A A A A A A A	1			
miriam*****	X C C C C A	1			
nesmithc****	70007 30007	1			
parkere*****	70005 70005	5 1			
pastor12aQ****	ב ששפוני	$ar{1}$		_	
			1	С	
santom****	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	5 1 2 1 5 1 1 1			
\	72222	$\overline{1}$	1	В	
	00004 	5 i			
上上ののの日本本本本を	20002	i i	1	Ġ	
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いっととへいコネネネネテキ	ØØØØ2	2 1			
w william≪k××××	ØØØØ2	2 1			
		8 1	^	A	
YUY********	88887	7 1	2	П	
γαντιτιτιτ					

\* = not started v = curriculum mastered

NEXT for more students

LAB for listing options

Enter student name for individual records >>

SED Reading = PHIGREAA 432

Curriculum/Group:	2gedmat	h/phig	maaa	5.	/19/93	1Ø:16 AM
					Current	
Student		Class	VMS		Module_	Status
amiln******	ØØ2	2	1	1	Ď	
bielawskic***00	1 <b>Ø</b> Ø8	8	1	1	A	
l blakene∪m***#Ø₽	<b>1 1 1 1 1 1 1 1 1 1</b>	4	1			
burroush****#	10 N 6	6 9	1			
ohrish******	שמשו	9	1			
chris********	מממנ ממג	9 6 2 Ø 9	1			
cockrellt****# colonl*****	1000	2	i	1	F	
* dave*****phi@g	เสสส	ā	ø	_		
dave*******	เติดติ	9	ī			
* dave runtephi@	เติดต	Ø	Ø			
davish*****	1004	4	1		_	
dumpsonj *****	1ØØ2	2	1	1	A	
ferris******	צטטו	9	1			
fieldsc*****	7ØØ 1	1	1			
fisherl*****#Ø	1ØØ4	4	1	_	<b>~</b>	
' eravd*******	<b>1002</b>	2 7	1	2	C	
* EMUD*******	ומשנ		1			
hoangi******	3Ø87	7	1			
l hoangl******	<b>7007</b>	7	1			
'holderp*****Ø£	8ØØ6	6	1			
j ohnsone****##	7ØØ2	2 9	1			
john********	1009	9	1	4	^	
kucouskia****	1002	2	1	1	A	
legares******	8 8 8 8	8 9	1			
lequyenøøøø9	x ox ox o	9	1			
lequyen*****#Øi mointyrec***#Øi	1007 1007	2	i	1	F	
metzcher1****Ø	7002 7002	2	i	î	Ċ	
millern*****	raa i	<u>ī</u>	ī	ī	Ă	
miriam******	สตัตร	9	ī	_		
moralesm****#Ø	8ØØ5	5	1			
morrisc*****	7ØØ 1	1	1			
neale********	3ØØ 1	1	1	1	A	
nesmithc****#Ø	8ØØ4	4	1			
nguyenth****#Ø	7 <b>00</b> 7	7	1			
nguyent*****	8 <b>8</b> 87	7	1			
perezw******	<b>7</b> ØØ4	4	1			
pete*******	8 <b>8</b> 89	9	1			
rodrigueza***Ø	ØØØ5	5	1			
Smithm********	0ØØ4	4	1			
son1*******	8887	7	1			
* sonx******	7 M M C	7	1	•	G	
swisherj*****Ø	a a a a o a a a a o	2	1	2	GBECE	
terry********* torresc*****	บผม <b>ว</b> สสสว	7	1	1 5 1	٦٢	
turnerc******	0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1	1	ر 1	ā	
watsona*****	ตัดตัว	2	i	2	Ă	
williamsk****Ø	ØØØ2	2 1 2 1 2 2	ī	ī	Ä	
words******	ØØØ8	8	ī	_		
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	-					

~	=	curriculum	mastered		* =	<u>not</u>	started
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LAB for listing options

Enter student name for individual records >>

GED MATH = PHIG MAAA



Cur	riculum/Group: 2	gedwrit	e/phi	gwraa	. 5	/19/93	10:20	AM
						Current		-
	Student		Class	VMS	Course	<u>Module</u>	Status	<u> </u>
	amiln********	82	2	1				
	ben**********ØØØ.	Ø9	1	1	1	A		
	bielawskic***000.	ø8	8	1				
	burnettv*****ØØØ	Ø 8	8	1	1	В		
	burrisc******000.	Ø 4	4	1				
	chris*********	ØØ	9	1				
*	chris hopks		1	1				
	cintronl*****ØØØ	Ø5	5	1	_	_		
	cooneym******000	Ø8	5 8 1	1	1	F		
	dave*****phi000	ØØ	-	1		_		
	dumpsonj * * * * * # Ø Ø Ø	Ø 2	2	1	1	Ğ		
	enochv********	Ø 8	8	1	1	C		
*		Ø 2	2 8 2 6 9 5 1	1		_		
	holderp******#	Ø 6	6	1	1	₽		
	john*********	<u>8</u> 9	9	1	1	D		
	lebrong******000	<u> </u>	5	1	1	₿		
	lequyen******000	M 9		1				
	1udo**********	9	9	1	_	_		
	mointyrec****000	<b>Ø</b> 2	2 3 2 9 8	1	2	D		
	mcsorleyj****#ØØØ	12 3 12 3	3	1	<u>.</u>	_		
	metzchenl****ØØØ	10/2	2	1	1	F		
	miriam*******	<b>19</b> 9	9	1	_	_		
	000neym*****#ØØØ	พิธ	8	1	1	С		
	pastorizad***#000	כמ	5	1	4	_		
	santom*******000	106	6	1	1	С		
	terry*********	ל שו ל ש	9 2 7	1	4	~		
	torresc*****#000	ω <u>ζ</u>	2	1	1	င္အ		
	vuongp******#000	מן (	ζ.	1	1	E E		
	watsona*****#000		2 2 8 7	1	1	<u>-</u>		
	williamsk****000		4	1	•	=		
	words*******		8	1	1	e e		
			<del>,</del>	1	1			
	Ana * * * * * * * * * * * * * * * * * * *	ושו	(	1				

□ = curriculum mastered

NEXT for more students

LAB for listing options

Enter student name for individual records >>

SED URITING = PHICURAF

Curriculum/Group: 21	gedsci/phigs	caa	5.	/19/93	18:21 AM
4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4				Current	
Student	Class	_VMS	Course	Module	Status
amiln*******	82 2	1			
arroyoc********	88	1			
chris*********	øø 9	i	2	A	
cintron1****#888	Ø5 5	1			
colon1*******	Ø2 2	1	1	A	
cooneym******	88 89 85 85 86 86 86 86 87 89 81 82 87 87 87 89 82 84	1			
corneliusa***888	ø6 6	1			
dave*****phi888	øø i	1			
donna********	Ø9 9	1	4	A	
dumpsonj *****888.	Ø2 2	1			
fieldsc***********	Ø1 1	1	1	A	
gravd********ØØØ.	Ø 2	1	1	A	
hoangi ******DDD.	<b>87</b> 7	1			
j ennyfer****ØØØ.	Ø9 9	1			
i ohnsone****#ØØØ	<b>Ø</b> 2 2	1			
iohnsonm****#ØØØ.	Ø4 4	1		_	
iohn***********	<b>Ø9</b> 9	1	1	A	•
lebrong******888		1			
1equyen*****#888	Ø9     9       Ø9     9       Ø2     2       Ø2     2       Ø1     1	1	1	A	
1udo*********	<b>ø9</b> 9	1	4	A	
mcintyrec***#888	Ø2 2	1	1	A	
metzcherl****ØØØ	Ø2 2	1			
morgans******000		1		_	
nat**********	ע שע	1	1	A	
neale********	Ø 1	1			
nguyenth*****ØØØ	<b>197</b> 7	1			
nguyent******ØØØ	<b>19</b> 7	1			
robersong****#ØØØ	<b>Ø</b> 1 1	1			
rodrigueza***bbb	כ פע	1			
Sam*********	<b>19</b> 9	1			
santom******ØØØ	<b>1</b> 876 6	1			
teagues*******	<b>1</b> 1	1			
vuonep******DDD	<b>19</b> 77	1			
watsona*******	M2 · 4	1			
williamsk***#ØØØ	NØ 2 2	1	_	_	
Mords*******	Mas s	1	2	A	
VUV***********	197 7	1			

LAB for listing options

Enter student name for individual records >

GED Science = PHIGSCHA



Curriculum/Group: 2gedso	c/phigs	OBB	5.	/19/93	18:23 AM
				Current	
Student	Class	_VMS	Course	Modul e	Status
amiln*******#00002	2	1			
blakeneym****ØØØØ4	4	1			
bobbsf******#ØØØØ9	9 8 6 9 2 8	1	1	A	
burnettv*****88888	8	1			
burroush****#ØØØØ6	6	1			
chris**********	9	1			
colon1******#00002	2	1	1	B	
cooneym************************************	8	1			
dave*****phi00000	1	1			
dumpsonj*****#88882	2	1			
enochv******#00008	8	1		_	
fieldsc******00001	1	1	1	Ε	
gomezr*************	2	1			
gonzal ezm****#ØØØØ5	ž	1		P3	
grayd*******##############################	12815527248923294	1	i	В	
* hoangi *******#00007	5	1	1	B	•
johnsone****#88882 johnsonm****88884	4	4	1	U	
legares******00008	7	4			
1udo********ØØØØ9	0	1	4	_	
mointyreo****ØØØØ2	2	1	1	C A	
mosorleyj****ØØØØ3	2	1	7	П	
metzcherl****ØØØØ2	2	1	1	A	
nat*********ØØØØØ	ą	i	•	f 1	
nesmitho****#ØØØØ4	Á	i			
perezw******#00004	7	i			
pete*************	4 9	î			
smithm******00004	4	i			
son1*********ØØØØ?	· 7	i			
swisherj*****00002	2	ī			
teagues******00001	ī	ĩ			
* torress******00005	5	ĩ			
turnerc******00001	ī	1			
watsona*****ØØØØ2	1 2 2	1			
williamsk****00002	2	1			
words******#00008	8	1			
✓ * curriculum mastered				* = not	started

LAB for listing options

Enter student name for individual records >>

GED Soc. Stud. = PHIG SOAA

Curriculum/Group: Øbsre	adc/phib	sraa	5	/19/93	18:88 AM
Cdi i i cdi diii				Current	
Student	Class	VMS	Course	Module	Status
anita********00009	9	1			
arrovoc****################################	8	1			
pen**********	1	1			
bibbsh*****#ØØØØ6	6 7 8	1			
buit***********	7	1	_		
burnettv****#ØØØØ	8	1	3	F	
burrisc*****80004	4	1			
burroush****ØØØ6	6	1			
chris**********	9	1			
collinst****#ØØØØ3	3	1		_	
davish******00004	4	1	1	G	
enochy******ØØØØ8	8	1	3	B	
fisher1*****00004	4	1			
fred************	9	1			
freemanc*****00008	8	1			
* 3~3~4**************	2 7	1			
hoangixxxxxxXUUUU/		1			
jennyfer****ØØØ9	9	1			
johnsone****#ØØØØ2	2	1			
johnsonm****#ØØØØ4	4	1	1	F	
john***********	9	1	2	K	
lebrong*****#ØØØØ5	5	1			
* legares******00008	8	1			
lequyen*****#ØØØØ9	1	1			
1udo**********	1	1			
mointyrec****ØØØØ2	2	1			
L w mosorlevi***#ØØØØØ	3	1	9	Т	
metzcheri****ØØØØ2	2	1	1	G	
miriam******ØØØØ9	1	1	1	A	
nesmitho****ØØØØ4	4	1	1	F	
nguventh****ØØØØ?	7	1			
' pedro***************	1	1			
perezw******00004	4	1		_	
perkinsl****#00004	4	1	1	A	
rodrigueza***00005	5	1			
rosa***********	1	1			_
sam**********ØØØØ9	9	1			
santom*******00006	6	ī	1	J	
stevensonc***ØØØØ3	3	ī	-	-	
swisherj****#ØØØØ2	2	ī			
terry********ØØØØ	ĩ	ī	5	U	
thallerh****ØØØØ3	3	<u>-</u>	-	-	
theressa****ØØØØ9	9	ī			
* williamsk***#00002	2	ī			
words*******	8	ī	1	0	running
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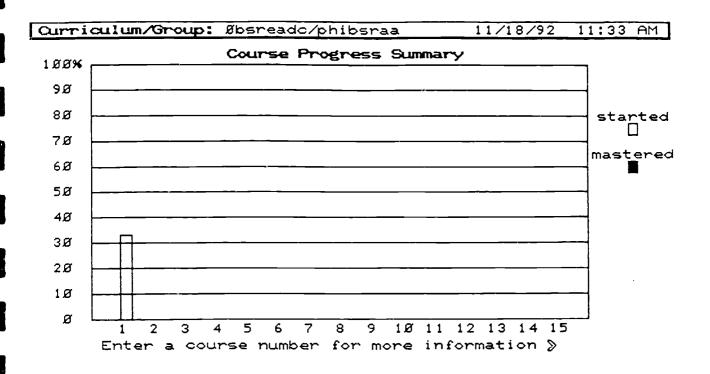
		curriculum mastered	* =	not	STE
v	=	curriculum mases: 40	 		

LAB for listing options

Enter student name for individual records >>

Basic Skills Reading = PHIBSRAA





LAB to switch to TABULAR display mode

Curriculum/Group: Øbsreadc/phibsraa	11/18/92	11:33 AM
Curriculturo oup: pos eaces prilos as	11/10/71	

Course Progress Summary

Course	Number	of Students	(%)	Average
	Assigned	Started	Mastered	Score
1 2 3 4 5 6 7 8 9	33333333333333333333333333333333333333	1 (33) 8 (8) 8 (8) 8 (8) 8 (8) 8 (8) 8 (8)	8 ( 8) 8 ( 8) 8 ( 8) 8 ( 8) 8 ( 8)	13 88888888888

Enter a course number for more information >>

LAB to switch to GRAPHIC display mode



Curriculum/Group: 8b	slang/p	hibse	aa		5/17	/93	4:34	PM
COURSE #1	CLASS	lanco	FEGH	I.IKI	MNOP	ORST	UVWX	Y7.\$%
amiln*******00002	2		====		====			
ben*********ØØØØ9	5		9===		<b></b>			
✓ bielawskic***#######	8	===#	====			2		
blakeneym****88884	4		1	1	1			
bob elmore***88888	ġ							
brownr******#ØØØØ1	i							
burnettv*****ØØØØ8	8	====				PEER		8488
burrisc*****888884	4							~~
byrdm*******ØØØØ8	8		<b></b>				~	
* chris****phi00000	1	j		1	ļ	1		
chris*******00000	9			1				
	8			2000			8588	****
corneliusa***00006	6							
* dave*****phi00000	1	]			Ì		Ì	
* dave runtephi00000	1					İ		
donna******#00009	9		====		===-	====	W==#	
dumpsonj *****#88882	2	## E C -						
enochv******###############################	8	0				<b></b> ,		
√ fieldsc******ØØØØ1	1	====		====				
fred*******#ØØØØ9	9	===-						
freemanc****#00008	8							
freemenc****#88888	8	~~~-						
grayd******fam	99		<b></b>					
v grayd******#ØØØØ2	2						====	
gwup********88887	7	==0-						
hoangi***********	7	==0-						
hoang1******#00007	7	#80-						
holderp*****#00006	6	== -						
johnsone*****#######	2			1	l			ļ
johnsonm****#88884	4	E W -						
john*******##############################	9							
kucouskia****ØØØØ2	2	##C-						
v legares*****#00008	8						====	A===
lequyen*****#88889	9	==0-						
ludo**********88889	9			l	l	Į.		ŀ
mcintyrec***#ØØØØ2	2							
	. 3		====	====	====		====	
metzcher1****00002	2	=0						
millern*****#88881	1							
miriam*******00009	9		1					
morgans******00001	1	==						
nat**********	9							
neale*******00001	1							
nguyenth*****00007	7		1	1	İ	1		
nguyent*****00007	7		<b>j</b>	1		1	1	
oooneym*****################################	8 3				===-			
parkere***********	3							
perezw******#88884	4						i	
sammonsm****#################################	6 9 8	1		1				
sam*************	9				====			
v sanderss***********************************	8		====					
santom******###############################	6 7	1	l	1			1	
son1*******#00007				====				
sonx**********	7					1		1
	d			le st	arted	= *	mast	ered
		- =	assi					

LAB for listing options

### **USAGES OF CYBIS SYSTEM**

(Drexel) Record usage for group phi00001 as of 08/13/93:

Name		Last On	Days	Sessions
brownr	i	02/16/93 18:26	3	6
fieldsc	i	05/03/93 13:36	17	29
kellettb	i	04/06/93 10:21	1	1
millern	i	04/26/93 15:03	5	20
morgans	i	05/26/93 14:18	5	12
morrisc	i	05/06/93 09:30	2	3
neale	i	05/24/93 14:38	4	8
robersong	i	03/01/93 15:29	2	8
teagues	i	04/30/93 11:39	3	9
turnerc	i	03/30/93 15:11	12	61

(Lutheran Settlement House) Record usage for group phi00002 as of 08/13/93:

Name		Last On	Days	Sessions
amiln	i	07/22/93 22:05	35	124
colonl	i	05/11/93 17:43	23	88
dumpsonj	i	05/13/93 16:23	19	64
grayd	i	07/24/93 23:13	44	113
johnsone	i	05/30/93 19:15	25	87
kucouskia	i	03/25/93 17:54	6	11
mcintyrec	i	05/26/93 09:51	31	105
metzcherl	i	08/11/93 13:59	76	373
swisherj	i	06/19/93 12:57	35	132
torresc	i	07/18/93 14:56	33	100
watsona	i	06/03/93 17:20	17	50
williamsk	i	05/15/93 16:53	15	75



(YMCA) Record usage for group phi00003 as of 08/13/93:

Name		Last On	Days	Sessions
collinst	i	04/07/93 08:44	3_	10
crawleyf	i			
garrp	i	03/11/93 12:40	11	2
goreh	i	05/03/93 11:25	1	1
masonj	i			
mcintoshj	i			
mcsorleyj	i	08/12/93 21:04	96	311
orsinij	i	04/01/93 18:51	3	88
parkere	i	06/03/93 20:45	10	32
stevensonc	i	04/15/93 17:46	1	4
thallerh	i_	03/11/93 12:11	4	9
thallerj	i			

(Center for Literacy) Record usage for group phi00004 as of 08/13/93:

Name		Last On	Days	Sessions
blakeneym	i	06/07/93 20:08	15	44
burrisc	i	05/29/93 22:39	14	35
cainep	i	02/25/93 10:43	1	2
davish	i	03/25/93 10:18	8	23
fisherl	i	05/18/93 11:15	8	16
fosterl	i	05/11/93 11:03	4	8
grantj	l	08/11/93 19:50	9	22
johnsonm	i	04/12/93 01:00	7	23
millerc	i	07/21/93 17:36	7	16
nesmithc	i	05/26/93 14:51	15	32
perezw	i	07/23/93 18:00	21	67
perkinsl	i	05/18/93 11:31	8	15
smithm	i	05/20/93 23:04	8	16
youngj	i			<u></u>



(Aspira) Record usage for group phi00005 as of 08/13/93:

Name		Last On	Days	Sessions
agnesm	i			
<u>ci</u> ntronl	i	08/09/93 12:16	50	129
deliap	i	08/06/93 21:17	30	109
gomezr	i	07/29/93 22:22	24	73
gonzalezm	i	07/22/93 19:45	28	84
handelm	i	06/21/93 19:17	7	25
lebrong	i	08/10/93 14:57	37	120
moralesm	i	05/24/93 16:26	17	42
pastorizad	i	05/21/93 18:22	22	121
perezj	i	07/29/93 17:35	33	127
rodrigueza	i	08/08/93 19:05	38	93
rosarioj	i	07/22/93 20:47	25	97
santiagom	i			
torress	i	07/01/93 14:24	18	63

(Temple) Record usage for group phi00006 as of 08/13/93:

Name		Last On	Days	Sessions
bibbsh	i	06/02/93 18:29	3	8
burroush	i	04/25/93 08:38	12	44
cockrellt	i	05/21/93 09:07	4	9
corneliusa	i_	03/19/93 15:06	15	35
figueroamad	i	06/16/93 21:49	7	15
holderp	i	05/31/93 13:01	24	58
lewisd	i	04/06/93 12:21	5	10
nelsond	i	06/04/93 15:46	13	30
rossj	i	04/06/93 12:47	2	5
sammonsm	i	04/08/93 11:37	3	6
santom	i	06/17/93 22:19	12	30
tamas	S			



(Indochinese-American Council) Record usage for group phi00007, 08/13/93:

Name		Last On	Days	Sessions
buit	i	03/26/93 14:50	3	10
gwup	i	05/06/93 13:56	4	12
hoan	i	06/16/93 21:52	20	54
hoang1	i	06/10/93 17:52	8	21
nguyent	i	04/16/93 17:02	8	25
nguyenth	i	06/03/93 19:24	19	45
phanl	i_	04/06/93 18:33	11	11
sonl	i	06/24/93 19:27	20	44
sonx	l	03/12/93 14:20	3	7
thuyt	i	06/24/93 10:53	4	6
vuongp	i	08/06/93 19:14	24	48
vuongtc	i	03/31/93 16:05	2	4
vuongtv	i	06/10/93 16:47	23	43
wur	i	05/14/93 18:32	1	8
yuy	i	07/18/93 17:35	17	45

(CWEP) Record usage for group phi00008 as of 08/13/93:

Name		Last On	Days	Sessions
bielawskic	i	06/23/93 10:20	36	97
burnetty	i	07/22/93 11:06	36	137
byrdm	i	05/04/93 17:45	17	26
chybinskij	i	08/08/93 22:42	9	21
cooneym	] i	05/25/93 18:50	15	51
enochv	i	08/10/93 10:31	26	66
freemanc	i	05/23/93 22:41	12	24
johnsonn	i	06/21/93 18:37	1	2
legares	i	06/28/93 12:22	48	197
sanderss	i	05/26/93 20:35	16	40
words	i	07/27/93 16:20	64	201



(Instructors-as-learners) Record usage for group phi00009 as of 08/13/93:

Name		Last On	Days	Sessions
agnesm	i			
anita	i	04/19/93 22:38	4	8
ben	i	07/15/93 16:48	24	72
bob	i	11/17/92 15:20	1	3
bobbsf	i	02/27/93 21:42	1	2
donna	i	07/26/93 19:05	23	49
donnac	i	06/04/93 11:07	1	2
don hoffstrom	i	01/15/93 15:29	11	1
ferris	i	03/16/93 09:29	7	15
fred	i	04/12/93 14:17	8	13
jay	i			
jeane	i			
jennyfer	i	12/27/92 19:36	4	13
john	i	06/16/93 17:42	33	99
kuttan	i			
lequyen	i	06/23/93 13:41	27	77
ludo	i	05/04/93 09:39	12	28
тагу	i	05/25/93 10:22	11	22
meg	i	11/24/92 13:23	1	1
mell	i	03/29/93 14:31	1	1
mhecksel	i	07/21/93 15:52	11	13
miriam	i	07/21/93 13:59	1	2
neida	i			ļ
nick	i	12/18/92 13:29	1	11
pat	i			
pedro	i	04/15/93 18:09	11	ļ
pete	i	02/10/93 21:07	3	
rosa	i	11/24/92 16:01	1	
testing	i	01/18/93 09:52	1	

(Instructors-As Instructors\_ Record usage for group phiadmin as of 08/13/93:

			1	
		Last On	Days	Sess.
agnesm	i			
anita	i	04/26/93 08:42	3	4
ben	i	08/13/93 08:03	122	351
bob elmore	a	11/17/92 15:09	1	11
chris hopkins	a	01/11/93 10:49	2	2
dave runte	a	06/22/93 11:01	2	2
dean christens	en a	a 02/11/93 09:32	2	2
donna	i	08/10/93 14:28	62	110
donnac	i	06/15/93 16:37	15	23
ferris	i	03/16/93 09:40	5	6
fı J	i	07/07/93 09:12	24	32
hong	i	06/23/93 17:38	36	61
jan	i			
jay	i	05/14/93 14:43	_1	11
jean	i	11/30/92 14:13	1	11
jennyfer	i	01/29/93 12:46	8	10
john	i_	06/22/93 07:56	57	96
lequyen	i	02/25/93 09:58	14	22
ludo	i	05/04/93 09:49	16	20
meg	i	06/11/93 11:34	2	3
mell	i	04/20/93 20:23	2	2
miriam hecksel a		07/21/93 14:00	75	109
pat	i			
pedro	i	07/26/93 19:12	119	318
pete	i	06/01/93 11:55	7	9